EM 3/12

U.S. Department
of Transportation
**National Highway
Traffic Safety
Administration**

Emergency Medical Services Instructor Training Program
A National Standard Curriculum

Instructor Lesson Plans

First Edition—1986

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For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402

Preface

The National Highway Traffic Safety Administration (NHTSA) has assumed responsibility for the development of training programs that are responsive to the standards established by the Highway Safety Act of 1966 as amended. These training programs are designed to provide national guidelines for training. It is NHTSA's intention that they be of the highest quality and be maintained in a current and up-to-date status from the point of view of both technical content and instructional strategy. To this end, NHTSA supported the current project which involved the development of a curriculum package deemed of high value to the States in carrying out their annual training programs.

While NHTSA has successfully developed numerous training programs for EMS personnel, i.e., Basic EMT, EMS Dispatcher, First Responder and EMT-Paramedic which have served as a national standard for many years, the instructional delivery of those standardized programs varies markedly. In the majority of programs nationwide, Instructors have little or no formal education or training in instructional design and delivery. Recognizing the lack of standardization and the limited background of EMS Instructors, this training program was developed.

NHTSA wishes to thank Technical Assistance and Systems Consultation, Inc. (TASC) for their work in the coordination of this project. Particularly helpful was TASC's recognition of the need for extensive review and input from current EMS Instructors and prominent EMS organizations. Dr. Michael L. Tracy served as the principle investigator for TASC. Dr. Fred Kladder and Dr. Carl F. Calkins served as special advisors to TASC during this effort.

NHTSA also wishes to thank the National Council of State Emergency Medical Services Training Coordinators which served as the primary subcontractor. Their assistance in the development and review of these materials was invaluable. Specifically, acknowledgement is provided to the following project staff for the National Council of State EMS Training Coordinators:

Patrick Cote, Maine
S. Gail Dubs, Pennsylvania
Michael F. French, Wisconsin
George L. Johnson, New York
Tyler B. Larson, North Dakota
Nels D. Sanddal, Consultant NCSEMSTC

NHTSA also recognizes the following individuals who represented their organizations in an official liaison capacity during this project.

Rocco V. Morando, representing the National Registry of Emergency Medical Technicians.

John Sigafoos, representing the National Association of Emergency Medical Technicians.

Janet Head, representing the Society of Instructor/Coordinators, a division of the National Association of Emergency Medical Technicians.

Introduction

This Instructor Lesson Plans document is one of three documents prepared for the Emergency Medical Services (EMS) Instructor Training Program. It was prepared for the course instructors. As such, it contains a detailed outline of course content and guidance for teaching each lesson. Two other documents complete the training package: A *Course Guide* which contains planning and management information required by the instructor, course administrator or coordinator to manage the training program and a *Student Study Guide* which provides an overview of the objectives and content of each course lesson and includes study suggestions to aid trainees in achieving course objectives.

The training course covers all instructional techniques currently considered to be within the responsibilities of an entry level EMS instructor. The training program is designed under the assumption that each student is competent in the clinical knowledge and skills in the area of EMS he will instruct in, e.g. basic EMT. This training program focuses on the instructional and training methods which will allow the new instructor, once s/he has completed this training, to impart that clinical competence to his or her students. This course develops skills in instructional design, delivery and evaluation. It also provides an orientation to the structure and design of NHTSA EMS training materials.

The purpose of the training is to ensure individual competency in each student by the successful completion of each objective. The course consists of 12 lessons involving 40 hours of instruction and participation. Within that time frame 10 hours is allowed for the students to prepare, deliver and receive corrective feedback on two mini presentations. Those times are calculated on the first session (lesson 7) including one three minute presentation and five minutes allowed for review and critique. The second session (lesson 11) is scheduled for a ten minute presentation and ten minutes of review and critique for 12 students. Times will have to be adjusted accordingly to accommodate larger or smaller groups of students. The titles and times required for each of the 12 lessons are provided on page vi of this guide.

Additional modifications to this training program may be necessary to meet specific certification requirements within individual States. The course administrator should check with the respective State EMS agency or office for the specific requirements. It is expected that such modifications will be in the form of supplemental information and that the essential information covered in this curriculum will be presented.

Course Lessons

Lesson 1. Principles of Adult Learning. (2 hrs.) The student is introduced to general learning theory and the specific principles of adult education (andragogy).

Lesson 2. Student Learning Styles. (3 hrs.) The student is provided with information relating to methods by which specific individuals learn and retain information and skills. The student is shown various styles and techniques used by a variety of instructors which enhance student learning rates and retention.

Lesson 3. Development and Utilization of Instructional Objectives. (3 hrs.) The student learns techniques of developing and utilizing instructional objectives as the foundation for sound instructional design. The three components of measurable objectives are stressed and examples are drawn from the student's expected content area, e.g., First Responder.

Lesson 4. Preparing and Using Lesson Plans. (4 hrs.) The essential components of a lesson plan are discussed in general and the format utilized within the DOT/NHTSA EMS curricula packages are reviewed in detail.

Lesson 5. Preparation and Use of Instructional Aids. (4 hrs.) General principles of audiovisual presentations and the use of other instructional aids is presented. Specific instruction is presented in how the student can prepare his/her own aids if none are available or are cost prohibitive.

Lesson 6. Class Participation Techniques. (4 hrs.) Methods of encouraging student participation in the instructional process are introduced. Techniques of fielding questions and creating a positive learning environment are presented.

Lesson 7. Mini Presentation One. (4 hrs.) The student prepares and delivers a 3 to 5 minute presentation on a non-EMS related topic which does not include skill instruction. Peer and faculty evaluation is provided. This session serves as a baseline for subsequent review of the candidates' skills during the mini presentation in lesson 11.

Lesson 8. Practical Skill Instruction. (4 hrs.) Specific instructional technology used in psychomotor skill acquisition such as task analysis are discussed and practiced. The importance of skill acquisition and maintenance in EMS programs is stressed.

Lesson 9. Providing Student Feedback. (2 hrs.) The principles and techniques of corrective feedback as an instructional method are discussed. The broader spectrum of analyzing performance problems is introduced.

Lesson 10. Evaluating Student Performance. (3 hrs.) Methods of evaluating cognitive and psychomotor objectives are presented. The student is introduced to both formal and informal evaluation processes.

Lesson 11. Mini Presentation Two. (6 hrs.) As an evaluation of the student's ability to instruct, each student prepares and presents a 10 minute segment of a lesson specific to the content area in which he will be teaching. Review and evaluation is provided to each student by the faculty and peers. Videotape may be used for self evaluation.

Lesson 12. Orientation to DOT/NHTSA Format and Materials. (1 hr.) The curricula packages available for EMS instruction from DOT/NHTSA are introduced. Specific review of the content area in which the students will be teaching is completed and local resources will be discussed. State, regional and local policies relative to EMS training programs are discussed as applicable.

Specific performance objectives are reproduced at the beginning of each lesson plan.

Lesson 1
Principles of Adult Learning

Objectives

At the conclusion of lesson 1, the instructor trainer will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Define training
- Distinguish between training and education
- Define learning
- List 3 general theories of learning and describe each
- List 6 characteristics of adult learning
- List 3 characteristics of the most influential instructor in their lives
- Identify the 4 roles of an instructor

Requirements

Material: (One for each student)

- Registration form
- Student Study Guide
- Schedule or agenda
- Handouts or references
- Others as required

Equipment:

- 35 mm slide projector
- Overhead projector
- Screen
- Chalkboard/flipchart

Visual Aids: (suggested)

- Prepared overhead transparencies covering the material covered in the lesson

Instructors:

- One individual knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson
- Be knowledgeable of all State rules and regulations pertinent to EMS instructors
- Be aware that much of the lesson is introductory in nature and will be repeated and reinforced in subsequent lessons

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student welcome--acknowledgement that attendees are assembled for the first lesson of a 40 hour course designed to prepare them to become instructors in one or more areas of Emergency Medical Services. a. Stress importance b. Stress need for participation c. Stress that clinical competence in their chosen field of EMS is assumed
Need for Training (0:05) 0:10	1. The effectiveness of the DOT/NHTSA EMS curricula is dependent on the quality of the instructional delivery of those materials 2. Many EMS instructors rise through the ranks of good clinicians with little or no experience or formal education in instructional design or effective training delivery 3. Even those instructors with previous experience can benefit from practical exercises and peer review 4. The orientation to DOT/NHTSA EMS curricula and their intended use can increase standardization and effectiveness, thus reducing the amount of development time for instructors 5. The development of specific skills and instructional techniques can increase effectiveness in areas of extreme instructional difficulties such as teaching patient assessment and other practical skills 6. Effective instruction may increase student performance post training, thereby creating a system of more efficient EMS delivery by well-trained individuals
Course Purpose (0:15) 0:10	1. The course has been designed so that, upon successful completion, the student will be able to: a. Obtain the appropriate curricula packages developed by DOT/NHTSA b. Organize and prepare materials for presentation c. Effectively deliver and ensure the retention of cognitive and psychomotor objectives contained with the curriculum package d. Prepare instructional aids which will increase the effectiveness of the training program delivery e. Ensure that all equipment and materials necessary for EMS student learning is present and operational f. Evaluate EMS student performance and provide structured corrective feedback to improve subsequent performance g. Provide a mechanism of evaluating training program effectiveness 2. There is not sufficient time contained within the course to teach or review Emergency Medical Services skills and knowledge. It must therefore be assumed that the student is competent in the clinical area of EMS in which s/he will teach.

Instructor's Notes

Describe responsibility relative to the course

Ask each student to introduce themselves and briefly describe their EMS and instructional background

Time (Elapsed) Actual	Contents
Course Scope and Materials (0:25) 0:15	1. **Course Lessons** **Lesson 1. Principles of adult learning.** (2 hrs.) The student is introduced to general learning theory and the specific principles of adult education (andragogy) **Lesson 2. Student Learning Styles** (2 hrs.) The student is provided with information relating to methods by which specific individuals learn and retain information and skills **Lesson 3. Development and Utilization of Instructional Objectives.** (3 hrs.) The student learns techniques of developing and utilizing instructional objectives as the foundation for sound instructional design. The three components of measurable objectives are stressed and examples are drawn from the student's expected content area, e.g., First Responder **Lesson 4. Preparing and Using Lesson Plans.** (4 hrs.) The essential components of a lesson plan are discussed in general and the format utilized within the DOT/NHTSA EMS curricula packages are reviewed in detail **Lesson 5. Preparation and Use of Instructional Aids.** (4 hrs.) General principles of audiovisual presentations and the use of other instructional aids is presented. Specific instruction is presented in how the student can prepare his own aids if none are available or are cost prohibitive **Lesson 6. Class Participation Techniques.** (4 hrs.) Methods of encouraging student participation in the instructional process are introduced. Techniques of fielding questions and creating a positive learning environment are presented **Lesson 7. Mini Presentation One.** (4 hrs.) The student prepares and delivers a 3 to 5 minute presentation on a non EMS related topic which does not include skill instruction. Peer and faculty evaluation is provided. This session serves as a baseline for subsequent review of the candidates skills during the mini presentation in lesson 11 **Lesson 8. Practical Skill Instruction.** (4 hrs.) Specific instructional technology used in psychomotor skill acquisition such as task analysis are discussed and practiced. The importance of skill acquisition and maintenance in EMS programs is stressed **Lesson 9. Providing Student Feedback.** (2 hrs.) The principles and techniques of corrective feedback as an instructional method are discussed. The broader spectrum of analyzing performance problems is introduced **Lesson 10. Evaluating Student Performance.** (3 hrs.) Methods of evaluating cognitive and psychomotor objectives are presented. The student is introduced to both formal and informal evaluation processes **Lesson 11. Mini Presentation Two.** (6 hrs.) As an evaluation of the students ability to instruct, each student prepares and presents a 10 minute segment of a lesson specific to the content area in which he will be teaching. Review and evaluation is provided to each student by the faculty and peers. Video tape should be used for self evaluation **Lesson 12. Orientation to DOT/NHTSA Format and Materials.** (1 hr.) The curricula packages available for EMS instruction from DOT/NHTSA are introduced. Specific review of the content area in which the students will be teaching is completed and local resources will be discussed. State, regional and local policies relative to EMS training programs are discussed as applicable 2. **Materials** a. Recommended text(s), references, reading assignments, etc. b. Design and use of the STUDENT STUDY GUIDE

Instructor's Notes

Refer to a Schedule of lessons. Indicate what the instructor and the student will accomplish in each lesson. Give time and place of each lesson. Note that all times are minimums

This lesson as well as Lesson 11 must be explained carefully as it tends to cause a great deal of anxiety. A positive approach is essential

Time (Elapsed) Actual	Contents
	3. **Other Requirements** a. Explain any additional requirements for course completion b. Explain certification requirements, if applicable
Introduction (0:40) 0:05	1. **Lesson Objectives.** By the end of this lesson the student will be able to: a. Define training b. Distinguish between training and education c. Define learning d. List 3 general theories of learning and describe each e. List 6 characteristics of the adult learning process (andragogy) f. List 3 characteristics of the most influential instructor in their lives g. Identify the 4 roles of an instructor
Training and Education (0:45) 0:15	1. Defined: Education is the general acquisition of knowledge for the betterment of self a. It is an important process which teaches problem solving and general study habits b. Does not specifically prepare people for their vocations or jobs 2. Defined: Training is the process of acquiring the knowledge and skills necessary to perform a specific task a. It is common in industry and serves as the basis for vocational centers and on-the-job training or apprenticeship programs b. Designed to effect performance c. Performance components: 1) Knowledge of when, why and how to accomplish the task 2) Psychomotor capabilities and effectiveness in completing the task 3) The desire or motivation to complete the task d. Types of motivation: 1) To learn. Can be affected to a great degree by effective training methods and the attitude of the trainer 2) To perform. Once the student has left the classroom the trainer has far less influence and responsibility for motivating the student for correct performance
Learning (1:00) 0:15	1. Defined: Learning is an active process between the instructor and student which results in the gaining of knowledge, comprehension or mastery of information 2. Review Laws of Learning a. Effect: Students will accept and repeat responses that are pleasant. "Success breeds success" b. Primacy: First impressions are vital and lasting c. Exercise: The more an activity is repeated the sooner it becomes habit d. Disuse: Skills not practiced and knowledge not used are forgotten e. Intensity: Vivid, dramatic experiences are more likely to be remembered

Instructor's Notes

This an opportunity to demonstrate the usefulness of the STUDENT STUDY GUIDE (SSG). Have the student review the objectives in the SSG as you do

Ask individual students how much of their education prepared them for their jobs

Most EMS training programs are designed to teach specific performance skills

Describe the factors that effect a person's desire to learn or perform. This will be reinforced in subsequent lessons

Time (Elapsed) Actual	Contents
General Theories of Learning (1:15) 0:15	1. Sensory stimulation theory: a. Suggests that more attention be given to the senses rather than emotional or intellectual processes b. Stresses the importance of the learning process c. Based upon research which indicates that students have an immediate retention of: 1) 10% of what they read 2) 20% of what they hear 3) 30% of what they see 4) 50% of what they see and hear 5) 70% of what they say 6) 90% of what they say and do d. Recognizes the problem of forgetting and stresses the need for retraining e. Problems associated with the sensory stimulus theory: 1) The student takes a more passive role 2) The instructor may become an entertainer rather than a teacher 3) The burden of learning tends to rest more heavily on the instructor 2. Reinforcement theory: a. Strongly influenced by Skinnerian philosophy which suggests that behavior is strongly influenced by the consequences of the behavior b. Two general principles involved: 1) Behavior which is followed by a pleasant consequence (reinforced) is more likely to occur again 2) Behavior which is followed by an unpleasant consequence (punished) is less likely to be repeated c. Ineffective if abused or misunderstood because: 1) Students seldom "do it right" on their first attempt 2) Depends heavily upon a positive relationship between the instructor and student 3) Principles of reinforcement and punishment can be extremely complex d. Serves as a strong rationale for creating a positive learning environment e. Can be effective if the instructor understands the process of "shaping": 1) Must identify some correct elements in performance 2) Must recognize "successive approximations" 3) Must reinforce each increasingly correct attempt 3. Facilitation theory: a. Strongly identified with Carl Rogers' theory and emphasis on the student or learner's involvement in the learning process b. Stresses the role of the instructor as being one of a facilitator rather than a stimulator or controller of the learning process c. Suggests that the instructor should be as concerned with his students as with his content

Instructor's Notes

Discuss the importance of theory as it relates to the use of AV's and other sensory presentations

Provide examples of each type of stimulus

Give examples

Example, child misbehaving to get attention

Discuss Rogers' belief that teachers should be as concerned with their students as they are with their subject

Time (Elapsed) Actual	Contents
	d. May create problems in training because: 1) It is not conducive to tight schedules and time constraints 2) It is not always compatible with standardized curricula 3) It is particularly erosive of practical skill standards e. Strong points include: 1) An openness in the learning process 2) A willingness to share information 3) Increased student involvement in the design, delivery and evaluation processes 4) Student paced content
Characteristics of Adult Learning (1:30) 0:15	1. Defined: Andragogy is the study of how adults learn. Andra—derived from Greek, meaning man, not boy a. Assumes that there are large differences between how adults and children learn b. Stresses the need for the instructor to manage the learning environment, not necessarily the content c. Requires the establishment of two-way communication 2. Characteristics of adult learning: a. See themselves as self-directing b. Are problem centered c. Like to participate d. Need to relate new material and information to previous experiences e. Need a learning climate which is collaborative f. Need to participate in planning g. Must participate in their own evaluation h. Need to see a direct benefit from the activity i. Reappraise their interests and needs related to their educational experiences j. Become impatient with long lectures k. Prefer being treated as mature individuals l. Learn as well as younger students
Characteristics of an Effective Instructor (1:45) 0:05	1. Every instructor displays an individual personality, yet there are certain similarities amongst those who are truly effective a. Knowledgeable 1) Content area 2) Instructional design b. Skilled 1) Content area 2) Instructional area c. Motivated 1) Believes content is important 2) Believes in the instructional process 2. The most highly rated instructors are: a. Knowledgeable about the subject matter b. Effective in transmitting that information and c. Concerned about their students

Instructor's Notes

Discuss the desirability of such an approach and the problem of practicality in some situations, particularly in light of time, monetary and quota constraints

Ask students what has made their most productive learning sessions as an adult enjoyable and effective

Ask students how many teachers, trainers/ instructors they have had through their lives that were truly effective and made a significant impact on their lives

Point out that good EMS clinicians do not automatically make good instructors. Ask the students to list the 3 things which made the most significant instructor in their lives so effective. Summarize on the board, all responses will generally fall into these 3 categories

Time (Elapsed) Actual	Contents
Roles of an Instructor (1:50) 0:05	1. Instructor a. Concerned with the delivery of information b. Concerned with the evaluation of instruction c. Concerned with selecting the most appropriate instructional techniques to transmit the information 2. Designer a. Concerned with identifying training needs b. Concerned with developing a training program to meet the identified needs c. Concerned with new or innovative approaches to learning technology 3. Administrator a. Concerned with recordkeeping b. Concerned with regulatory requirements effecting the training program c. Concerned with budget and financial management of the training program d. Concerned with scheduling and logistical concerns 4. Consultant a. Concerned with performance problems post training b. Concerned with providing an ongoing support system to his students c. Concerned with serving as a resource to other instructors d. Concerned with finding creative solutions to training and performance problems 5. Role model 6. Academic advisor/counselor
Summary and Questions (1:55) 0:05	1. No one theory of learning, training or education is 100% correct. Take the points of each that are effective for you and your students. 2. Be exploratory and innovative. Performance outcome of your students is the final determinant of success 3. Class questions or comments on the lesson 4. Ask selected students for demonstration of the objectives
(2:00)	

Instructor's Notes

For those students who are currently instructing, ask what percentage of time is spent in each category

In many EMS systems, this role consumes the majority of the time

This is often the least used role in EMS instructional systems

Question class members on selected objectives

Lesson 2
Student Learning Styles

Objectives

At the conclusion of lesson 2, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- List 4 intrinsic factors which influence individual learning rates
- List 4 external factors which influence individual learning rates
- Define individual needs assessment
- List 3 methods of increasing student learning rates
- Define communication
- List the 2 types of communication
- Describe 5 areas of non-verbal communication
- Describe 5 methods of increasing the effectiveness of verbal communication
- Name 2 local cross-cultural groups likely to be encountered in the area or region
- List 3 basic principles for improving cross-cultural communication
- List 7 specific steps which can be taken to increase communication effectiveness in cross-cultural situations
- Describe 1 negative feeling regarding the practical exercise

Requirements

Material: (One for each student)

- Handouts or references
- Others as required

Equipment:

- 16 mm film projector
- 35 mm slide projector
- Overhead projector
- Screen
- Chalkboard/flipchart
- Some item of emergency care equipment, e.g., splint

Visual Aids: (suggested)

- Prepared visual aids covering the material covered in the lesson
- 35 mm slides on some aspect of emergency care
- 16 mm film on some aspect of emergency care

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be needed to assist with the practical exercises

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (----) 0:05	1. Instructor Introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:15	1. **Lesson Goals** a. To serve as an introduction to individualized learning processes b. To challenge the student to look for innovative and individualized methods of instruction c. To introduce some basic principles of communication d. To introduce different cultural and ethnic backgounds which impede effective communication, and how the instructor can minimize those effects e. To provide practical exercise which demonstrates the frustrations felt by certain adult learners 2. **Need for Lesson.** During his or her career as an EMS instructor, the student will encounter a variety of individuals in the classroom. Given the highly voluntary nature of much of our EMS system, each student must be trained to a level equal to at least that of the National Standard Curriculum for that particular discipline. The instructor must realize the need for individualized approaches to overcome differences in learning styles and rates 3. **Lesson Objectives.** At the end of this lesson the student will be able to a. List 4 intrinsic factors which influence individual learning rates b. List 4 external factors which influence individual learning rates c. List 3 methods of increasing student learning rates d. Define communication e. List the 2 types of communication f. Describe 5 areas of non-verbal communication g. Describe 5 methods of increasing the effectiveness of verbal communication h. Name 2 local cross-cultural groups likely to be encountered in the area or region i. List 3 basic principles for improving cross-cultural communication j. List 7 specific steps which can be taken to increase communication effectiveness in cross-cultural situations k. Describe 1 negative feeling regarding the practical exercise
Factors Affecting Individual Rates (0:20) 0:20	1. **Intrinsic Factors** a. Previous learning experience 1) Type; standard, vocational, military, etc. 2) Level; high school, etc. 3) Experience; positive or negative 4) Outcome; better job or no change 5) Value; seen as worthwhile or useless

Instructor's Notes

If new instructor, introduce self and faculty members

Review lesson coverage and objectives. Emphasize the importance of the material to be covered

Refer to lesson objectives in Student Study Guide and review with class

Question class members on what things effect learning rate and retention

Time (Elapsed) Actual	Contents
	b. Previous content related experience 1) Related vocational field, e.g., R.N. 2) Related vocational field, e.g., CPR instructor 3) Related training, military, etc. 4) Related education, e.g., biology major c. Sensory ability 1) Sensory, i.e., sight, hearing 2) Cognitive ability, e.g., problem solving 3) Psychomotor ability, e.g., mechanical aptitude d. Motivation 1) Genuine interest 2) Something to do 3) Job or promotional requirements 4) Self esteem 2. **External Factors** a. Content 1) Interesting 2) Valuable 3) Understandable 4) Readily applicable b. Instructor 1) Knowledgeable in both content and delivery 2) Skilled in both content and delivery 3) Concerned about content, delivery and students c. Environment 1) Room 2) Seating arrangement 3) Heat 4) Light 5) Noise d. Support and encouragement 1) Instructor 2) Class peers 3) Family 4) Work peers 5) Others
Methods of Increasing Learning Rate (0:40) 0:20	**Individualize Instruction** a. Identify entry level knowledge and skills for each student b. Monitor student progress during each session and measure each student's progress towards each objective c. Make yourself available for questions and individualized discussions and practice d. Clarify that the intended outcome is that each student will be able to meet each objective regardless of length of commitment e. If an individual is failing to meet objectives in a timely fashion, intervene early. Don't allow the student to fall hopelessly behind

Instructor's Notes

Discuss the pros and cons of individualized instruction. Find out what type of a system, e.g., vocational school, they will be instructing in and question to what degree they think this is practical & how they can overcome obstacles which may preclude such an approach

Time (Elapsed) Actual	Contents
	2. **Conduct Individual Needs Assessments** a. Identification of tasks to be accomplished 1) Knowledge necessary 2) Skills necessary b. Inventory of student's abilities 1) Current knowledge 2) Current skills c. Subtract current knowledge and skills from necessary knowledge and skills to identify deficiency: T(task)−I(inventory)=D(deficiency) d. Design training strategies to overcome deficiency 3. **Involve the Student** a. In course design 1) Creates ownership 2) Increases receptivity b. In instructional delivery 1) Creates pride 2) Provides additional manpower 3) Allows additional help for those who need it 4) Develops peer support 5) May provide unique solutions to delivery problems c. In evaluation and feedback 1) Creates mutual respect 2) Contributes to openness 3) Provides information to allow for increased future instructional effectiveness 4. **Control the Learning Climate** a. Comfortable b. Non-threatening c. Reinforcing d. Important
Communication Principles (1:00) 1:00	1. Defined: Communication is the process of transmitting one's thoughts, wishes or desires to another. Implies that there is a response or acknowledgement from the receiver a. It is a two-way circuit, sender to receiver b. The circuit must be checked to ensure reception c. The role of the sender and receiver is not static and is constantly changing d. The most important skill an instructor can possess 2. **Non-verbal Principles Include** a. Eye contact 1) Each speaker 2) All listeners b. Movement 1) Vertical (toward/away from) 2) Horizontal (side to side)

Instructor's Notes

Diagram T-I=D formula on board and discuss how it relates to the general principle of andragogy which suggests that adults learn best when they can relate to previous experience (I)

Discuss importance, give examples of how to involve students at each level, i.e., a: Break times, order of lessons, b: Experienced students as lab assistants, demonstrations of special skills, c: Rating guest speakers

Stress need for the instructor to be receptive to feedback if s/he expects the students to be

Stress importance of two-way circuit

Actions often speak louder than words

Important to move toward students on occasion

Time (Elapsed) Actual	Contents

c. Time
   1) Spent
   2) Wasted
d. Body language, gestures
   1) Active listening
   2) Reinforcement
e. Posture
   1) Disinterested
   2) Enthusiastic
f. Pace
   1) Content rate
   2) Delivery rate
g. Attire
   1) Appropriate
   2) Inappropriate
h. Observation of student response
   1) Interested
   2) Disinterested

3. **Verbal Principles Include:**
   a. Enthusiasm
      1) Voice
      2) Importance
   b. Reinforcement
      1) Positive statements
      2) Use of participant expansion
      3) Humor
   c. Emphasis
      1) Power
      2) Repeat
      3) Amount of time
   d. Questions (type)
      1) Open
      2) Use student name
      3) Cue
      4) Opportunity to pass
   e. Questions-level
      1) Narrow
      2) Broad
      3) Probe and extend
   f. Soliciting Feedback
      1) Ask for questions
      2) Ask for reactions
      3) Ask specific questions

Instructor's Notes

Remind students that speaking ability can be learned

Stress importance of openness, gracious acceptance

Time (Elapsed) Actual	Contents
	g. Use of participant feedback 1) Repeat 2) Paraphrase 3) Extend and build 4) Give credit h. Control participation 1) Over-participator 2) Under-participator i. Control content 1) Keep pace correct 2) Redirect tangents 4. **Listening Principles Include:** a. Be open b. Eye contact c. Be interested d. Let student complete if germane e. Acknowledge understanding
Cross-Cultural Communication (2:00) 0:10	1. Identify possible groups or individuals with differing communication customs or abilities a. Race b. Religious custom c. Language barriers d. Social custom e. Ethnic background f. Previous association
Methods of Improving Cross-Cultural Communications (2:10) 0:20	1. Basic principles a. Recognize when communication has not been entirely successful b. Accept that others may not intend to convey wrong or confusing information or negative attitudes c. Seek ways of specifically identifying communication breakdown and take positive steps to improve subsequent communication 2. Specific suggestions a. Listen until the other person is finished b. Allow extra time for response or answers c. Establish communications first in noncrowded and nonthreatening atmosphere if problems appear d. Talk openly about communication problems e. Talk openly about discrimination. Make changes in attitude or environment which may be perceived as discriminatory f. Seek help from communications experts as well as from other members of the cultural group as to how communications might be improved in specific instances g. Learn to expect and appreciate differences. Be accepting of other people's ideas and perceptions

Instructor's Notes

Have students list groups in the area which may pose communication challenges

This section should be expanded and customized as indicated in those areas with population's unique characteristics

Give examples as they apply to cross-cultural differences in the local area

Time (Elapsed) Actual	Contents
Practical Exercises (2:30) 0:20	1. To demonstrate the role of the senses in learning: a. Show a film which is highly dependent on sound to make sense and then either garble or turn off the sound, then ask for specific information on the content of the film b. Use a slide show which is critical to understanding a particular presentation and leave the projector out of focus. Once again ask for specific information on the content of the presentation 2. To demonstrate the need for good communication, have an instructor make a presentation on relatively well-known material in a foreign language. Test for understanding 3. Have selected students role-play appropriate and inappropriate nonverbal communications such as poor eye contact, disinterest, etc. 4. Ask the students to describe their feelings during each of the exercises and how those examples might relate to students they will encounter
Summary and Questions (2:50) 0:10	1. Class questions or comments on the lesson 2. Ask selected students for demonstration of the objectives
(3:00)	

Instructor's Notes

These exercises may be brief and are offered as examples. Others may be developed dependent upon resources available to you. The point is to create a nonconducive atmosphere to learning to demonstrate the principles covered in the first 2 lessons

These exercises may be interspersed throughout the presentation to encourage participation. Ask them to relate to previous learning experiences

Lesson 3 Development and Utilization of Instructional Objectives

Objectives

At the conclusion of lesson 3, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Define a performance objective
- Describe 4 advantages to designing learning experiences using objectives
- List the 3 essential components of a performance objective
- State the most critical grammatical component of a performance objective
- List 10 action verbs relevant to EMS
- Describe the role of performance objectives in evaluation
- Write 3 objectives which define cognitive performance containing the 3 essential components of an objective
- Write 3 objectives which define psychomotor performance containing the 3 essential components of an objective

Requirements

Material: (One for each student)

- Handouts or references
  - Examples of objectives contained within DOT/NHTSA EMS curricula
  - Blank objective worksheets (1 copy of each of these is provided in Appendix D)
- Others as required

Equipment:

- 35 mm slide projector
- Overhead projector
- Screen
- Chalkboard/flipchart

Visual Aids: (suggested)

- Prepare visual aids covering the material presented in the lesson

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:10	1. **Lesson Goals** a. For designing content outlines or lessons b. To streamline instruction designed with a specific outcome or performance at the end of the instruction c. To assure that the instructor and the student know where they stand in the instructional process d. Provide for evaluation which is more precise and understandable e. To ensure student performance adheres to a pre-described standard at the end of the training program 2. **Need for Lesson.** Since most instructors in the EMS field have little formal background and training in instructional design and delivery, they are often intimidated by the entire process. A clear understanding of objectives and their role as the foundation for instruction helps the potential instructor to focus his or her attention on the objectives and makes the process more clear. 3. **Lesson Objectives.** At the end of this lesson the student will be able to: a. Define a performance objective b. Describe 4 advantages to designing learning experiences using objectives c. List the 3 essential components of a performance objective d. State the most critical grammatical component of a performance objective e. List 10 action verbs relevant to EMS f. Describe the role of performance objectives in evaluation g. Write 3 objectives defining cognitive performance containing the three essential components of an objective h. Write 3 objectives defining psychomotor performance containing the three essential components of an objective
Performance Objectives (0:15) 0:10	1. **Defined:** Performance objectives are specific, observable and measurable statements of intent describing proposed changes in the student (learning). They serve as a description of performance we want the student to be able to demonstrate. 2. The purpose is: a. To help the instructor to design, select and provide appropriate learning experiences b. To communicate to others, particularly the student, what is expected c. To serve as a basis for evaluation, both ongoing and terminal d. To help to ensure that performance is the outcome of the training 3. Performance objectives differ from goals. Goals are global in nature and relatively unmeasurable

Instructor's Notes

If new instructor, introduce self and other faculty

Review lesson coverage and objectives. Emphasize the importance of the material to be covered

Refer to lesson objectives in Student Study Guide & review with class

Explain that in spite of terminology difference such as learning, behavioral & enabling objectives, they are all basically the same

Stress that all DOT EMS training packages rely heavily on performance objectives

Time (Elapsed) Actual	Contents

Essential Components of Performance Objectives
(0:25) 0:30

1. **Conditions**
   a. Under what circumstances will the performance occur?
      1) When?
      2) With what materials given?
      3) Other prerequisites?
      4) Are there variables?
2. **Performance**
   a. What will occur?
      1) Must be observable
      2) Must be specific
3. **Criteria:**
   a. How well will it be done?
   b. How often?
   c. How many?
   d. How much?
   e. How will the student know it is okay?
      1) What is the standard?
      2) Is 100% accuracy expected?
      3) Must be measurable

Describing Performance
(0:55) 0:05

1. The verb is the key
   a. Do not use passive verbs, i.e.,
      1) To know
      2) To understand
      3) To really understand
      4) To appreciate
      5) To fully appreciate
      6) To grasp the significance of
      7) To enjoy
      8) To believe
      9) To have faith in
   b. MUST be active, i.e.,
      1) To apply
      2) To choose
      3) To categorize
      4) To copy
      5) To chart
      6) To define
      7) To demonstrate
      8) To diagram
      9) To detect
      10) To differentiate
      11) To document
      12) To fasten
      13) To find
      14) To isolate
      15) To lift
      16) To locate
      17) To mark
      18) To name
      19) To perform
      20) To rank
      21) To provide
      22) To quote
      23) To collect
      24) To trace
      25) To count
      26) To classify
      27) To describe
      28) To designate
      29) To distinguish
      30) To discriminate (between)
      31) To repeat
      32) To immobilize
      33) To identify
      34) To label
      35) To list
      36) To match
      37) To note
      38) To place
      39) To order
      40) To select

Instructor's Notes

Sometimes the acronym SWBAT, "Student Will Be Able To", helps students get started with a statement of condition

Stress the need to make criteria realistic, 100% is seldom so

Discuss the curriculum, protocols & texts, all as potential standards

Sample objectives containing passive verbs to get the class to come to a consensus on what they mean helps to illustrate the point

Discuss that passive verbs are more often used in goals which are not measurable

Examples of poor, better and best objectives are helpful. All examples should be divided into the component parts using a form similar to the student worksheet

Action verbs should provide specific, observable and measurable expectations for the student

Time (Elapsed) Actual	Contents
Using Objectives in Evaluation (1:00) 0:20	1. **Objectives Enable the Instructor To:** a. Track instructional effectiveness b. Measure interim progress of the: 1) Individual 2) Class c. Measure terminal progress of the: 1) Individual 2) Class 2. **Objectives Enable the Student to:** a. Track interim progress, and have reinforcement from progress in course; b. Make measurable progress that serves as the basis for reinforcement; c. Gauge how much training is left; d. Identify important points within the curriculum 3. **Objectives Enable the Program to:** a. Measure program effectiveness b. Measure individual instructor effectiveness c. Provide a format for measuring cost effectiveness and other evaluation d. Link content and evaluation processes
Practical Exercises (1:20) 0:30	1. Have each student write 3 objectives which define cognitive performance and contain the 3 essential components of an objective 2. Have each student write 3 objectives which define psychomotor performance and contain the 3 essential components of an objective 3. Have class members share their objectives with the class pointing out the conditions, performance and the criteria as they are presenting them. Ask the class whether the verb is an action verb which is observable
Summary and Questions (1:50) 0:10	1. Class questions or comments on the lesson 2. Ask selected students for demonstration of the objectives
(2:00)	

Instructor's Notes

Objectives should help to keep an instructor on track

Serves as a basis for replacing weak links

It may be helpful to break group down with a faculty member assisting each small group

Pre-designed worksheets which have columns labeled Condition, Performance & Criteria often serve to expedite session

Question class on selected objectives

Lesson 4
Preparing and Using Lesson Plans

Objectives

At the conclusion of lesson 4, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Define a lesson plan
- List the 6 essential components of a lesson plan
- Describe the purpose of each of the 6 essential components of a lesson plan
- Provide 1 example of the 6 general categories of presentations and identify the 3 most effective categories
- Write a lesson plan for a 3 to 5 minute presentation containing the 6 essential components and following the DOT format on a non-EMS-related topic

Requirements

Material: (One for each student)

- Handouts or references
  - — An example of a DOT/NHTSA EMS curricula lesson plan
  - — Blank lesson plan worksheets. (A copy of these is provided in Appendix D)
- Others as required

Equipment:

- 35 mm slide projector
- Overhead projector
- Screen
- Chalkboard/flipchart

Visual Aids: (suggested)

- Prepared visual aids covering the material presented in the lesson. Include overhead projection examples of DOT Instructor Lesson Plans.

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be needed to assist with the practical exercises

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:10	1. **Lesson Goals** a. To serve as an introduction to developing and using lesson plans as a means of organizing material for presentations b. To introduce the student to the broad spectrum of preparation and planning considerations which need to be addressed before each presentation c. To provide practical exercise which helps the student become familiar with the organization and intent of DOT instructor's lesson plans 2. **Need for Lesson.** During his or her career as an EMS instructor, the student will be called upon to present a variety of different material, to a variety of different audiences. The ability to develop and organize material in a clear, concise and standardized format will help to ensure the success of each presentation 3. **Lesson Objectives.** By the end of this lesson the student will be able to: a. Define a lesson plan b. List the 6 essential components of a lesson plan c. Describe the purpose of each of the 6 essential components of a lesson plan d. Cite 1 example of each of the 6 general categories of presentations and identify the 3 most effective categories e. Write a lesson plan for a 3 to 5 minute presentation, containing the 6 essential components and following the DOT format on a non-EMS-related topic
Lesson Plans (0:15) 0:20	1. **Defined.** A lesson plan is a written method of organizing content materials, equipment and resources in such a manner as to ensure the outcome of a training session 2. **The Components Are** a. Objectives: What 1) Define outcome 2) Focus instruction 3) Encourage evaluation b. Requirements: How 1) Material (software) 2) Equipment (hardware) 3) Visual aids 4) Instructors c. Instructor preparation/tasks (Who) 1) Transmit content 2) General duties defined 3) Specific duties defined d. Time 1) Total 2) Running a) Elapsed b) Actual e. Content 1) Outlined 2) Prioritized 3) Emphasized f. Notes 1) Personal observations 2) Examples 3) Questions 4) Cues for visual aids 5) Proper spellings

Instructor's Notes

If new instructor, introduce self and other faculty members

Review lesson coverage and objectives. Emphasize the importance of the material to be covered

Refer to lesson objectives in Student Study Guide and review with class

Describe the importance of a written lesson plan

Students should already be familiar with objectives; ask for discussion on their advantages

Stress the importance of personal comments to cue the instructor

Time (Elapsed) Actual	Contents
Objectives (0:35) 0:10	1. **Objectives.** Allow the instructor and students to immediately understand the expected outcome of the class a. To indicate the level of expected understanding or achievement of the students b. To weigh the importance and depth of the material c. To present the chronological order of the session
Requirements (0:45) 0:10	1. Material a. Administrative 1) Registration forms 2) Attendance rosters 3) Schedule or agenda 4) Vouchers b. Instructional 1) References 2) Handouts 3) Worksheets 2. Equipment needed: a. Audiovisual 1) Projectors 2) Screens 3) Cords 4) Chalkboard 5) Flipchart 6) Spares b. Demonstration/practice 1) EMS equipment, e.g., pneumatic counter pressure devices 2) Related demonstration equipment, e.g., manikin 3) Unrelated demonstration materials, e.g., closed pump system 3. Visual aids planned: a. Prepared 1) Films 2) Slides 3) Overheads 4) Charts 5) X-Rays 6) Etc. b. Spontaneous 1) Overheads 2) Chalkboard 3) Flipchart 4) Etc. 4. Instructors needed: a. How many b. Qualifications
Instructor Preparation/ Tasks (0:55) 0:10	1. Tasks include: a. How to prepare b. What to bring c. Need to orient others d. Other expectations

Instructor's Notes

This material will be covered in greater detail in a subsequent lesson

The need for the instructor to be thoroughly prepared should be stressed

Time (Elapsed) Actual	Contents
Times (1:05) 0:05	1. Times used in DOT material a. What is the total amount of time of the lesson b. Actual time is the amount of time to be spent on a single topic or sub-topic c. Elapsed time is a cumulative total of the amount of time since the beginning of the lesson
Content (1:10) 0:20	1. The Outline should: a. Be separated by topics for ease of reference b. Provide sufficient detail to ensure standardization and content coverage c. Follow a logical sequence including: 1) Administrative matters 2) Introduction a) Lesson overview b) Need for lesson c) Lesson objectives 3) Body 4) Summary 5) Questions 2. Not be read or all inclusive a. Instructor should embellish b. Instructor should personalize 3. Sample Outline format (major heading) a. Main sub-topic 1) Points within subtopic 2) Points within subtopic a a) Points within subtopic a-2 b) Points within sub topic a-2 b. Another main subtopic 1) Etc
Instructor Notes (1:30) 0:10	1. Instructor notes should include: a. A-Vs b. Examples c. Questions d. References e. Technical information f. Identify methods of instruction g. Other
Selecting Instructional Methods Based On Effectiveness (1:40) 0:20	1. Real experience (clinical, field or apprenticeship) a. Most effective method of learning b. May be slow since it requires making mistakes as part of the learning process c. Requires risk of both money and personnel d. Difficult to set up e. Difficult to control

Instructor's Notes

Discuss the importance of staying within reasonable time parameters as a courtesy to the student & other instructors. Refer to DOT Lesson Plan

Topics should reflect key points of the objectives

A handout on proper outline notation may be useful

Stress importance

This material is largely introductory in nature & will be discussed in more detail in subsequent lessons

Discuss the ethical questions involved in using real EMS instruction

Time (Elapsed) Actual	Contents
	2. Contrived Experience (simulation) a. Second most effective b. Patient care simulations are the best example c. The more realistic, the more effective. Make the student believe it's real 3. Audiovisual a. Third most effective b. Must be accompanied by lecture or explanation to ensure effectiveness c. Commonly used in EMS training for the dissemination of large amounts of new material 4. Visual presentation a. Fourth most effective b. Film strip, slides, etc. 5. Audio presentation a. Fifth most effective b. Lecture, audio tape, etc. 6. Written presentation a. Least effective b. Reading assignments, etc.
Principles of Effective Delivery	1. **Control** a. The environment 1) Room arrangement 2) Lighting 3) Heating 4) Sound b. The arrangement 1) Equipment 2) Materials 2. **Composure** a. Look good b. Feel good c. Channel nervousness d. Be human 3. **Concern** a. Genuine 1) For student 2) For content b. Individualized 1) Openness 2) Eye contact 3) Active listening 4. **Communication** a. Most important aspect b. Remember: 1) Non-verbal principles 2) Verbal principles 3) Listening principles

Instructor's Notes

Distinguish between simulations and strictly rote skill practice

The use of AVs is discussed in detail in another lesson

Explain that the last 3 options are so ineffective that they should only be supplemental rather than primary methods

Time (Elapsed) Actual	Contents
Orientation to DOT EMS Materials (2:15) 0:05	1. Contain all of the essential components listed above 2. All packages have slight differences but overlapping similarities 3. Encourage customizing with the constraints of nationally accepted standards
Practical Exercises (2:20) 0:30	1. Each should prepare a lesson p' for their 3 to 5 minute presentation, being certain to include all of the ential components discussed within this lesson on a non-EMS topic 2. Blank forms mimicking the DOT format may be helpful
Summary and Questions (2:50) 0:10	1. Class questions or comments on the lesson 2. Ask selected students for demonstration of the objectives
(3:00)	

Instructor's Notes

Have examples of various material available. Overheads may be useful here to show each component

Students may wish to use the objectives developed in lesson 3 as the basis for their lesson

Question class members on selected objectives

Lesson 5
Preparation and Use of Instructional Aids

Objectives

At the conclusion of lesson 5, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Describe the purpose of an audiovisual aid
- Describe the limitations of audiovisual aids
- List 3 advantages to audiovisual aids
- List 6 types of audiovisual aids and describe 1 advantage and 1 disadvantage of each
- Describe the method for reducing the possibility of audiovisual failure
- Make 3 visual aids to support either of their lesson plans

Requirements

Material: (One for each student)

- Handouts or references
- Others as required

Equipment:

- 16 mm film projector
- Video tape recorder and monitor
- 35 mm slide projector
- Overhead projector
- Screen
- Chalkboard/flipchart
- Blank transparencies, pens, transfer letters, lettering guides, rulers
- Poster board, paints, scissors, glue, etc.

Visual Aids: (suggested)

- Prepared overhead transparencies covering the material covered in the lesson
- Samples of each type of aid to be discussed/presented in the lesson

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be needed to assist with the practical exercises

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:05	1. **Lesson Goals :** a. Designed to serve as an introduction to selection and proper utilization of audiovisual aids b. Will encourage the student to select his or her audiovisual aids carefully for clarity and usefulness c. The introduction to the construction of audiovisual aids will help the student to be able to develop aids if none are available or are cost prohibitive 2. **Need for Lesson.** Since the use of AV's can increase learning and retention rates the student must be comfortable with using a range of aids to assist in the instructional process. During his or her career as an EMS instructor, the student will encounter a variety of training aids on the market. He or she must be able to evaluate them objectively before purchasing or utilizing them. The instructor will also need to be able to develop his or her own materials if none are available or if they are not of sufficient quality to enhance the material being presented. Since AV presentations are so common in EMS instruction, the student should be thoroughly familiar with a variety of media possibilities 3. **Lesson Objectives:** a. Describe the purpose of an audiovisual aid b. Describe the limitations of audiovisual aids c. List 4 advantages to audiovisual aids d. List 6 types of audiovisual aids and describe 1 advantage and 1 disadvantage of each e. Describe the method for reducing the possibility of audiovisual failure f. Make 3 audiovisual aids to support either of his/her presentation lesson plans
General Concepts of AVs (0:10) 0:20	1. **Purpose:** a. To amplify and clarify a presentation b. To emphasize important points c. To stimulate student's senses and enhance learning d. To reinforce and summarize key concepts e. They allow material to be more clearly presented f. To bring into the classroom an object or process that is too big, small, spread out, unavailable, expensive, etc. 2. **Limitations:** a. They do not teach independently b. They must be relevant c. Must be well prepared d. Must be well presented

Instructor's Notes

If new instructor, introduce self and other faculty members

Review lesson coverage and objectives. Emphasize the importance of the material to be covered

Refer to lesson objectives in Student Study Guide and review with class

Stress that AVs do not teach by themselves

Some instructors assume that a poor AV is still better than none

Time (Elapsed) Actual	Contents
	3. **Advantages:** a. Causes more than one sense to be involved in the learning process b. May allow for more rapid presentation of material c. Often result in more rapid initial understanding d. Promotes increased retention e. Facilitates the learning process for a variety of student learning styles simultaneously 4. **Selection:** a. Readable 1) Legible 2) Visible to all 3) Appropriate format for room and audience size b. Relevant 1) Pertinent to topic 2) Up-to-date 3) Consistent with local protocol c. Reliable 1) Dependable in format and function 2) Should evoke consistent responses d. Repetitious 1) Should support presentation, not give it 2) Should stress only the important points 3) Should summarize and reinforce key points
Advantages, Disadvantages and Use of AVs (0:30) 1:15	1. **Chalkboard** a. Advantages 1) Readily available 2) Inexpensive 3) Easily changed or updated 4) Encourages spontaneity 5) Dependable 6) Room lights left on b. Disadvantages 1) No permanent record 2) May place instructor's back to the audience 3) Limitations on portability 4) Limitations on audience size c. Proper use 1) Prepare large or difficult items beforehand 2) Make certain that writing is legible 3) Don't talk while facing the board 4) Involve your students d. Construction 1) Colored chalk can enhance the appearance 2) Using students as recorders can increase involvement and free instructor's hands

Instructor's Notes

If you can't write, print. If you can't print, practice.

Apologizing or undue explanation or correction nullifies

Demonstrate proper and improper use

Time (Elapsed) Actual	Contents

2. **Flipchart**
   a. Advantages
      1) Inexpensive
      2) Reasonably portable
      3) Can be saved
      4) Dependable
      5) Encourages spontaneity
      6) Room lights left on
   b. Disadvantages
      1) Limited writing space
      2) Changes are messy
      3) May place instructor's back to audience
      4) Limitations on size of room and audience
   c. Proper use
      1) Complicated or time-consuming illustrations should be prepared ahead of time
      2) Don't talk with back to audience
      3) Make certain writing is legible
      4) Involve students
   d. Construction
      1) Commercially available
         a) Plain
         b) Ruled
         c) Grid
      2) Require stand
         a) Easel
         b) Plywood with spring clips
      3) Substitutes available
         a) Newsprint roll ends
         b) Butcher paper

3. **Overhead Transparencies**
   a. Advantages
      1) Attention getting
      2) Relatively inexpensive
      3) Easy to prepare
      4) Instructor can face audience while writing
      5) Can be either permanent or non-permanent
      6) Reasonably portable
      7) Room lights left on
      8) Reliable machinery
   b. Disadvantages
      1) Requires equipment
      2) Keystone effect
      3) Room and audience size limitations
      4) Can be blinding to instructor

Instructor's Notes

Explain that flipcharts can be made from newsprint or "butcher" paper if funds are restricted

Demonstrate proper use

Demonstrate correcting by moving top of screen outward.

Time (Elapsed) Actual	Contents

c. Proper use
   1) Prepare complicated transparancies ahead of time
   2) Arrange in order of anticipated use
   3) Cover unwanted portions until ready
   4) Leave on long enough
   5) Highlight or point to key concepts
   6) Involve the student
   7) Bottom of projected image should be at student's eye level

d. Construction
   1) Written (don't use grease pencils)
      a) Non-permanent pens
         i. Spontaneous
         ii. Highlight permanent overhead projection
         iii. Smear
      b) Permanent pens
         i. Good for pre-planned development
         ii. Don't allow for mistakes
         iii. Create a lasting, reusable product
      c) Stencils or lettering guides
         i. Make transparencies more legible
         ii. More professional looking

e. Other sources
   1) Photocopying. Make certain of transparency/machine compatibility
   2) Professional results
   3) Transfer lettering direct to film or to paper and photocopy
   4) Commercial sources are EMS publishers, schools
   5) Computer generated
   6) Graphics
   7) Lettering, direct
   8) Lettering, photocopy

4 **Slides**

a. Advantages
   1) Good for large rooms and audiences
   2) Can be either action oriented or words
   3) Allows reference back to previous slides
   4) Relatively portable
   5) Order easily rearranged

b. Disadvantages
   1) Expensive
   2) Difficult to produce
   3) Room must be darkened
   4) Requires equipment

c. Proper use
   1) Action slides should not be left on too long
   2) Word slides should be left on longer

Instructor's Notes

Have samples of overhead transparencies produced by various methods

Time (Elapsed) Actual	Contents

3) Make certain that they are in focus
4) Use to reinforce or highlight only

d. Construction
1) Photocopy, then photograph
2) Use colored backgrounds
3) Color reversal films
4) Get training or assistance

5. **Audio Tape Recordings**

a. Advantages
1) Can provide extra instruction for students at their convenience
2) Can provide auditory input for poor readers
3) Commercial availability
4) Moderate cost

b. Disadvantages
1) Re-recording to change
2) Low retention rate
3) No visual stimulation

c. Proper use
1) Preview materials
2) Introduce
3) Play/replay
4) Discuss

d. Construction
1) Set up equipment
2) Test sound levels
3) Record
4) Edit and revise

6. **Opaque Projector**

a. Advantages
1) Unlimited material
2) High student involvement
3) Moderate cost/maintenance
4) Reproduces color and shape
5) Useful in tracing posters/flat art

b. Disadvantages
1) Limited portability
2) Room darkened
3) Dim projection
4) Difficult to operate

c. Proper use
1) Select illustrations
2) Use large print
3) Prepare notes

d. Construction
1) Set up equipment
2) Introduce subject
3) Show and discuss

Instructor's Notes

Time (Elapsed) Actual	Contents

7. **Videotapes/Videodiscs**
   a. Advantages
      1) Action oriented
      2) Excellent for evaluation of simulations
      3) Easy to produce
      4) Technology is rapidly improving
      5) Can be backed up or frozen
      6) Tapes can be reused
      7) High student involvement
   b. Disadvantages
      1) Expensive initial investment
      2) Requires cumbersome equipment
      3) Limitations on class
      4) Technical skill required to operate
   c. Proper use
      1) Introduce piece
      2) Stop to explain or clarify if necessary
      3) Make certain that everyone can see and hear monitor
      4) Summarize and highlight at the end
   d. Construction
      1) Create storyboard
      2) Procure equipment
      3) Procure personnel
      4) Rehearse
      5) Tape
      6) Edit/retape

8. **Films**
   a. Advantages
      1) Generally of high quality
      2) Action oriented
      3) Entertaining
      4) Wide variety available
      5) Enjoyed by students
   b. Disadvantages
      1) Extremely expensive
      2) Requires cumbersome equipment
      3) Have to make someone else's production "fit"
      4) Room darkened
      5) Planned obsolescence
      6) Low student involvement
   c. Proper use
      1) Schedule/order film
      2) Preview film
      3) Introduce film
      4) Make certain that everyone can see and hear
      5) Summarize and highlight at the end
   d. Construction
      1) Create storyboard
      2) Procure equipment
      3) Procure personnel
      4) Rehearse
      5) Tape
      6) Edit/retape

Instructor's Notes

The use of video for evaluation is discussed in Lesson 10

Point out various formats & compatibility

Mention the use of large screen projection TV's

Have some examples of film costs

Time (Elapsed) Actual	Contents

9. **Handouts**
   a. Advantages
      1) Can provide the most current information on a topic
      2) Can make the student aware of viewpoints not covered in the text
      3) Can be added verbatim to the student's notes
   b. Disadvantages
      1) Expense of paper and duplication
      2) Preparation time
      3) Possible copyright infringement
      4) Can be confusing or contradictory
   c. Proper Use
      1) Review thoroughly before distribution
      2) Be prepared to explain or eliminate any discrepancies
      3) Ensure legibility
10. **Models, Manikins & Specimens**
   a. Advantages
      1) Can provide visual, kinesthetic, tactile and auditory reinforcement
      2) Can provide unsupervised practice and reinforcement opportunities
      3) Can provide a simulated experience
   b. Disadvantages
      1) Expensive initial investment
      2) May not accurately represent what you want to depict
      3) Difficult to modify
      4) High maintenance factor
   c. Proper Use
      1) Inspect to see it is in proper working order
      2) Supervise practice to ensure correct performance
   d. Construction
      1) Local butcher or packing house for organs
      2) Use student's own body where applicable
      3) Toy stores may have appropriate models
11. **Games**
   a. Advantages
      1) Provides alternate instructional method
      2) Lightens the learning atmosphere
      3) High retention
      4) Breaks down communications barriers
   b. Disadvantages
      1) May diminish the importance of the material
      2) Time consuming to develop and present
      3) Can distract from "professional" atmosphere
   c. Proper Use
      1) Should be carefully and sparingly used
      2) Assure that the intent is to facilitate learning
      3) Control the atmosphere of the classroom

Instructor's Notes

Types may range from radios to CPR manikins to animal organs

Time (Elapsed) Actual	Contents

4) Make sure rules are understood prior to beginning
5) Summarize and debrief

12. **Flat Art**
    a. Advantages
        1) Reusable
        2) Summarizes key points
        3) Graphs illustrate quantitative information
        4) Diagrams illustrate abstract relationships
        5) Generally inexpensive
    b. Disadvantages
        1) Limited writing space
        2) Room size limitation
        3) Changes difficult
        4) Display difficulties
    c. Proper Use
        1) Face students while talking
        2) Legible
        3) Limit amount of material
        4) Involve students
    d. Construction
        1) Identify concept
        2) Identify medium
        3) Sketch and plan
        4) Retain simplicity
        5) Construct
        6) Protect

Avoiding AV Failure
(1:45) 0:15

1. **KISS** (Keep It Simple, Stupid)
    a. Outcome is the key, not production
    b. Select the least elaborate choice that will accomplish the task
    c. Don't make presentations totally dependent upon AV's
    d. Plan your presentation and AV's with the audience and facility in mind
2. **Electrical Equipment**
    a. Is equipment available? Are you sure?
    b. Do you know how to operate it?
    c. Is it compatible?
    d. Are all of the pieces there?
    e. Make certain that you have:
        1) Three-prong adaptors
        2) Extension cords
        3) Spare bulbs
        4) Take-up reels
        5) Slide trays
        6) Screens
    f. Check it out before you need it, focus, sound levels, etc.

Instructor's Notes

Stress that just because something is entertaining it may not be instructional

Time (Elapsed) Actual	Contents
	3. **Always Have a Backup** a. Don't make yourself totally dependent on equipment if possible b. Plan for equipment failure 1) Have spare parts 2) Have a spare system 3) Have a training plan "B," practice, demonstration or other which does not require equipment
Practical Exercises (2:00) 0:50	1. Each student should make and/or select the audiovisual aids to support another or both presentations which they will make 2. Results should be shared with the class
Summary and Questions (2:50) 0:10	1. Class questions or comments on the lesson 2. Ask selected students for demonstration of the objectives
(3:00)	

Instructor's Notes

Give examples

The use of a wide variety of media types should be encouraged to expose students to proper selection & application

Question class members on selected objectives

Lesson 6
Class Participation Techniques

Objectives

At the conclusion of lesson 6, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- List 3 methods of increasing student participation in the learning process
- List 4 common room arrangements and describe 1 advantage and 1 disadvantage of each
- Describe 2 methods of directing student discussion
- List 5 general principles of questioning students
- Demonstrate an acceptable technique for increasing participation in a "quiet" student and controlling an "over-participating" student

Requirements

Material: (One for each student)

- Handouts or references
- Others as required

Equipment:

- 16 mm film projector
- 35 mm slide projector
- Overhead projector
- Screen
- Chalkboard/flipchart

Visual Aids: (suggested)

- Prepared visual aids covering the material presented in the lesson

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Because of the nature of this lesson, the instructor should not lecture or present the material but should guide the class through it by using discussion, questions and other techniques covered in this lesson
- Additional instructors may be needed to assist with the practical exercises

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:15	1. **Lesson Goals:** a. To provide an introduction to increasing student participation in the learning processes b. To introduce concepts relating to the variety of students he or she may encounter c. To provide practical exercises to help the student practice some techniques which will be useful in increasing and guiding student participation 2. **Need for Lesson.** During his or her career as an EMS instructor, the student will encounter a variety of individuals in the classroom. Given the highly voluntary nature of much of our EMS system, each student must be encouraged to learn and perform to his or her maximum potential. The future instructor must realize the need for individualized approaches to overcome differences in participation attitudes 3. **Lesson Objectives.** By the end of this lesson the student will be able to: a. List 3 methods of increasing student participation in the learning process b. List 4 common room arrangements and describe one advantage and one disadvantage of each c. Describe 2 methods of directing student discussion d. List 5 general principles of questioning students e. Demonstrate an acceptable technique for increasing participation in a "quiet" student and controlling an "over-participating" student
Encouraging Student Participation (0:20) 0:10	1. **Select Appropriate Methods** a. Limit straight lecture, vary techniques within lessons b. Use questions c. Use guided discussion 2. **Establish Expectations** a. To provide a feedback loop b. To solicit input and discussion c. To inform students that participation will be expected 3. **Create a Positive Learning Environment** a. Make room comfortable b. Remove physical barriers between the instructor and the students c. Make learning fun, be enthusiastic
Room Arrangements (0:30) 0:30	1. Room arrangement should be determined by: a. Type of presentation b. Size of audience c. Size of room d. Amount of interaction desired

Instructor's Notes

If new instructor, introduce self and other faculty members

Review lesson coverage & objectives. Emphasize the importance of the material to be covered

Refer to lesson objectives in Student Study Guide & review with class

Can't be overstressed

Stress the importance of an enthusiastic attitude by the instructor

Time (Elapsed) Actual	Contents

2. Theater Style:
   a. Rows of chairs facing forward with speaker in front center, sometimes on a platform
   b. Advantages
      1) Space efficient
      2) Handles large audiences
      3) Predominately lecture oriented
      4) Good visibility for AV's
   c. Disadvantages
      1) No writing area for students
      2) Limits participation between students and instructor
      3) Creates a learning barrier between students and instructor
      4) Precludes interaction between students
3. Classroom Style
   a. Rows of tables or desks facing forward, instructor is centered in the front, lecture or lecture/discussion oriented
   b. Advantages
      1) Writing area for students
      2) Good visibility for AV's
      3) Allows limited student-to-student interaction, laterally
   c. Disadvantages
      1) Less space efficient
      2) Increases the barrier between the student and the instructor
      3) Limits mobility of the instructor
      4) Not effective for discussion format
4. Board Room Style
   a. One or more large tables with students seated all the way around, instructor is typically at the head of the table, used for lecture, lecture/discussion or guided discussion
   b. Advantages
      1) Encourages student/instructor interaction
      2) Encourages student/student interaction
      3) Creates a less formal atmosphere
      4) Allows for increased student workspace
      5) Mobility for instructor
   c. Disadvantages
      1) Not space efficient
      2) Limited to small groups
      3) Poor visibility for AV's
      4) Reduces focus on the instructor
5. "U" Shaped Style
   a. Open-ended arrangement of table forming a "U" facing the front of the room, instructor area is between the legs of the "U", can be used for lecture/discussion, guided discussion or demonstration

Instructor's Notes

Diagram each of the typical room arrangements

Stress the utility of this arrangement for many sessions, particularly if the number of students is small

Time (Elapsed) Actual	Contents
	b. Advantages 1) Removes barriers 2) Encourages instructor movement and contact 3) Encourages student/student interaction 4) Good visibility for A-V's or demonstrations c. Disadvantages 1) Extremely space inefficient 2) Limited group size
Methods of Directing Discussion (1:00) 1:00	1. Discussions defined: A dialogue among participants or between participants and the instructor, usually oriented toward some question, content area or problem a. Characteristic of a good discussion 1) Oriented toward a set of objectives 2) Planned and controlled to ensure movement toward objectives 3) Rewarding to students b. Advantages 1) High student involvement 2) Creates student ownership 3) Encourages problem solving 2. Methods of directing a. Keep discussion oriented toward objectives and "on track" b. Ensure the opportunity for all to contribute c. Do not allow single-student domination d. Prevent the discussion from narrowing down and being of interest to only a few e. Conclude the discussion; don't allow it to drag on
Principles of Questioning	1. Questions defined: A method of increasing student participation by soliciting a response from individual students; stimulates thinking and encourages problem solving from the entire class a. To help the instructor 1) Motivate the group 2) Inventory student knowledge 3) Encourage active participation 4) Evaluate instructional effectiveness 5) Stress key points 6) Clarify information 7) Keep student attention 8) Review previous material 2. Categories a. Direct b. Indirect 3. Types a. Directive, review factual material b. Reflective, check feelings c. Open, test a student's inventory

Instructor's Notes

Model effective discussion and questioning techniques on material related to this lesson

Questions should be written and noted on lesson plans

Give examples

Time (Elapsed) Actual	Contents
	4. Keys to effective questioning a. Direct questions; don't ask "Are there any questions?" b. Allow time for response c. Don't call on someone until after you've asked the question d. Use an unpredictable sequence e. Reinforce those who answer f. Redirect student questions to the student body 5. Constructing effective questions a. Avoid "yes" or "no" answers b. Must be understandable c. Limited to one main thought d. Directly related to subject matter
Disruptive Student Behavior (2:00) 1:00	1. Handling the overtalkative student a. Causes 1) Eager beaver 2) Well informed 3) Needs attention b. Methods of intervention 1) Slow him down 2) Ask difficult questions 3) Let the group handle 2. Handling side conversation a. Why 1) Related to the subject 2) Personal b. Intervention 1) Ask a question 2) Move to where they are sitting 3) Ask opinion on previous material 4) Pause presentation and wait until they finish 3. Handling the negative or hostile student a. Causes 1) Prejudiced 2) Previous information which may be outdated 3) Doesn't want to be there (lack of motivation) 4) Previous negative association with instructor, program or material 5) Peer pressure b. Intervention 1) Ask the group what they think of his opinions 2) Offer time to discuss it with him outside of class 3) Say that time is limited and that you must move on 4) Ask to accept the class opinion for the time being 4. Dealing with the non talker a. Causes 1) Bored

Instructor's Notes

Give examples of each type, ask class for suggestions on each intervention

Time (Elapsed) Actual	Contents
	2) Indifferent 3) Feels superior 4) Shy b. Methods of intervention 1) Direct question (easy) 2) Appeal to their experience 3) Reinforce any response 4) Counsel outside of class 5. Dealing with the rambler a. Causes 1) Ill prepared 2) Likes to gab 3) Insufficient experience base 4) Disorganized b. Intervention 1) Restate salient points 2) Redirect the question 3) Move on 6. Helping the inarticulate student a. Causes 1) Lack of previous education 2) Lack of communication abilities 3) Lack of self esteem b. Intervention 1) Reinforce and support 2) Don't answer for them 3) Allow time for response 4) Restate answer, but leave as much intact as possible 5) Ask them to give another example
Practical Exercises (3:00) 0:50	1. Have each student roleplay an instructor and demonstrate an effective technique for dealing with two or more of the above types of students 2. Each student should "play" each of the roles at some point during the exercise 3. Have each student develop 3 direct and 3 indirect questions and demonstrate effective questioning techniques on other students
Summary and Questions (3:50) 0:10 (4:00)	1. Class questions or comments on the lesson 2. Ask selected students for demonstration of the objectives

Instructor's Notes

Due to the complex nature of this exercise a significant amount of preplanning is necessary. Make very specific assignments, roles and responses. Break into smaller groups if necessary.

These exercises should be disbursed throughout the lesson to provide variety & high levels of student involvement.

Question class members on selected objectives.

Lesson 7
Mini Presentation One

Objectives

At the conclusion of lesson 7, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Prepare a lesson plan for a 3 to 5 minute presentation on a non EMS related topic either assigned by the Instructor Trainer or selected by the student. This presentation should not be skill related
- Ensure that the lesson plan contains all of the essential components and is in a format similar to the standard DOT lesson plan
- Present a 3 to 5 minute instructional session on a non EMS related topic
- Observe other student's presentations and provide positive suggestions for improvement of subsequent lessons

Requirements

Material: (One for each student)

- Handouts or references
  - Mini presentation feedback forms (An example is provided in Appendix B.)
- Others as required

Equipment:

- 16 mm film projector
- 35 mm slide projector
- Video tape recording equipment
- Overhead projector
- Screen
- Chalkboard/flipchart
- Others that may be requested by the students to support their presentations

Visual Aids: (suggested)

- Blank overhead transparencies
- Others that may be requested by the students to support their presentations

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be needed to assist with the practical exercise, if the class is so large as to require breaking into smaller groups

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:15	1. **Lesson Goals** a. To serve as an opportunity for the student to plan, prepare, present and receive corrective feedback on a 3 to 5 minute presentation on a non EMS related topic. This presentation should not be skill related b. Non EMS related presentation will allow the student's peers and the faculty to concentrate on the method and manner of the presentation and not be involved in the content review. The student may select a topic with which he or she is familiar and comfortable c. To review other individuals' presentations will help the student to develop and practice principles of positive corrective feedback d. To provide a "warm up" for the longer presentation to be given later in the course 2. **Need for Lesson.** During his or her career as an EMS instructor, the student will be called upon to present a variety of material to his students. Fundamentals of planning, preparation and presentation introduced in this class will serve as a valuable experience for the student. It also reinforces the principle that the best way to learn something is by doing it 3. **Lesson Objectives.** By the end of this lesson the student will be able to: a. Prepare a lesson plan for a 3 to 5 minute presentation on a non EMS related topic either assigned by the Instructor Trainer or selected by the student. This presentation should not be skill related b. Ensure that the lesson plan contains all of the essential components and is in a format similar to the standard DOT lesson plan c. Present a 3 to 5 minute instructional session on a non EMS related topic, e.g., shoe tying d. Observe other student's presentations and provide positive suggestions for improvement of subsequent lessons
Final Preparations (0:20) 0:40	1. Provide materials and support for the final development of the lesson plans a. Answer final questions b. Review lesson plans and check format c. Encourage and calm anxious students
Presentations (1:00) 2:45	1. Have each student present the material contained within his or her lesson plan a. Select and introduce students b. Monitor time c. Be supportive

Instructor's Notes

If new instructor, introduce self & other faculty

Refer to Student Study Guide & review objectives with students

Emphasize positive feedback

Time (Elapsed) Actual	Contents
Evaluation (1:00) 2:45	1. Provide positive feedback a. Control peers b. Control self c. Control self criticism 2. Video Tape a. Strongly recommended to record student presentations 1) May be reviewed by individual student or the entire group 2) Review must be monitored by an instructor 3) Feedback to students can not be totally dependent on VTR in the event of equipment failure or lack of availability 3. Written feedback a. Use standardized forms b. Be objective c. Have peers complete also d. Provide to student as soon as possible without disrupting the class 4. Peer review a. Direct activity b. Keep positive c. Provide feedback to peers on manner of feedback delivery as part of the exercise
Summary and Questions (3:45) 0:15	1. Ask for questions or comments on the lesson 2. Question class members on selected objectives 3. End on a positive note
(4:00)	

Instructor's Notes

Watch for & comment on non-verbal communications

Lesson 8
Practical Skill Instruction

Objectives

At the conclusion of lesson 8, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Distinguish between rote skill demonstration and situationally oriented performance demonstration
- List the 3 components of a successful skill demonstration
- Define task analysis
- Describe 3 advantages of simulations as teaching techniques
- List the 3 factors which effect the outcome of simulations
- Describe 1 negative aspect of using simulations as teaching techniques
- Complete a task analysis
- Design a simulation exercise
- Describe the proper use of teaching assistants in developing practical skills

Requirements

Material: (One for each student)

- Handouts or references
- Others as required

Equipment:

- 35 mm slide projector
- Overhead projector
- Screen
- Chalkboard/flipchart
- Several items of emergency care equipment, e.g., splint
- Makeup and moulage or other materials necessary to develop simulations

Visual Aids: (suggested)

- Prepared audiovisual aids covering the material presented in this lesson

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be needed to assist with the practical exercises

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:10	1. **Lesson Goals** a. To serve as an introduction to specific techniques of instruction to assist students in learning psychomotor skills as well as overall performance acquisition b. To challenge the student to concentrate heavily on skill and performance acquisition among his or her EMS students c. To provide practical exercises which help the student develop the specific skills necessary to design strong learning opportunities for skill and performance acquisition 2. **Need for Lesson.** Current research indicates that the weakest area of both EMS instruction and performance is that which relates to practical skills and their appropriate application. Skill degradation post training is a well documented problem as is performance compliance. An assumption can be made, that to a limited degree these problems stem from poor instructional techniques or inadequate emphasis on practical skill and performance during EMS student's initial and ongoing training. The importance of the information and techniques covered in this lesson can not be overstressed 3. **Lesson Objectives.** At the end of this lesson the student will be able to: a. Distinguish between rote skill demonstration and situationally oriented performance demonstration b. List the 3 components of a successful skill demonstration c. Define task analysis d. Describe the proper use of teaching assistants in developing practical skills e. Describe the advantages of simulations as a teaching technique f. List the 3 factors which effect the success of a simulation exercise g. Describe 1 negative aspect of simulation exercises h. Complete a task analysis i. Design a simulation exercise
Distinguishing Between Performance and Skill Demonstration (0:15) 0:15	1. Describe performance demonstration as a composition of: a. Knowledge (cognitive) b. Skills (psychomotor) c. Desire, motivation (affective) 2. Describe psychomotor skills as: a. Strictly skill demonstration or mimicry 1) Requires no knowledge of why, when or how 2) Completed in isolation exclusive of other performance requirements b. Skills which can be taught to anyone who has the requisite physical capabilities c. Not synonymous with performance

Instructor's Notes

If new instructor, introduce self & other faculty members

Review lesson coverage and objectives. Emphasize the importance of the material to be covered

Refer to lesson objectives in Student Study Guide & review with class

Discuss that being able to do something does not ensure that it will be done at the appropriate time

Time (Elapsed) Actual	Contents
Conducting a Skill Demonstration (0:30) 0:15	1. Define the terminal skill a. Determine standards b. Establish desired effect c. Develop a performance objective d. Describe intermediate steps (task analysis) e. Identify the prerequisites 1) Equipment 2) Physical requirements 3) Other baseline skills 2. Demonstrate the skill a. First in its entirety b. Then break down component parts c. Explain each step d. Repeat and summarize with entire skill demonstration 3. Have student provide a return demonstration a. Monitor b. Provide corrective feedback c. Evaluate
Task Analysis (0:45) 0:15	1. Defined: A task analysis is a method of studying a skill and breaking it down into smaller components to facilitate learning 2. Advantages: a. To increase learning rate b. To increase retention rate c. To allow for more pertinent intervention d. To provide a basis for positive reinforcement e. To serve as a basis for more objective feedback 3. Requirements—each step must be: a. Sequential b. Meaningful c. Small enough to be easily learned and remembered d. Written 4. Construction: a. Have the skill performed properly b. Record each step c. Have the skill repeated based on the written task analysis d. Have the skill completed according to the task analysis by someone completely unfamiliar with the skill e. Refine the task analysis 1) Break problem steps down further 2) Clarify descriptions 3) Recheck terminal skill expectation

Instructor's Notes

Describe the importance of proper skill acquisition and maintenance to proper EMS performance

The first time a student performs the skill it must be under instructor supervision for purposes of feedback

CPR checklists provide a good example of how a complicated skill can be broken down so that it is understandable even to the lay public

READEX FICHE

Time (Elapsed) Actual	Contents
Successful Skill Demonstrations (1:00) 0:15	1. Requirements for skills/simulation demonstration a. Equipment should be: 1) Available 2) Functioning 3) Sufficient quantity b. The demonstration should be: 1) Organized 2) Visible 3) Meaningful c. The instructor should be: 1) Well versed 2) Well prepared 3) Reinforcing 4) Repetitious 5) At the appropriate level 2. Common errors in skill instruction include: a. Demonstration errors 1) Instructor error or omission 2) Failure to relate step inter-relationships or 3) Failure to follow the appropriate step order 4) Procedures presented exceed student's assimilation ability b. Follow-up errors 1) Delayed practice 2) Insufficient practice time 3) Limited equipment or materials
Use of Teaching Assistants (1:15) 0:15	1. The purpose is to: a. Provide the lead instructor with assistance in presenting, monitoring and evaluating cognitive and psychomotor performances b. Provide the student with intensive instruction, primarily during the attainment of psychomotor skills 2. The advantages are to: a. Improve student access to supervised practice of skills b. Reduce course time c. Provide varied viewpoints in student evaluation 3. The disadvantages are that they may: a. Be a source for conflict in evaluation and methods of skill application b. Potentially increase cost c. Create scheduling difficulties 4. Identification of Teaching Assistants requires: a. Evaluation of qualifications and knowledge base b. Identification of potential scheduling conflicts c. Define their role during the training program d. A review of method of evaluation to be utilized e. Familiarization of the Teaching Assistant with the evaluation tool to be utilized as related to the expected student performance

Instructor's Notes

Discuss need for written task analysis to be truly prepared

Skills must be practiced with lead instructor to ensure a consistent approach

Time (Elapsed) Actual	Contents
	5. Assuring desired outcome requires: a. Orientation of all teaching assistants and/or guest lecturers to: 1) Objectives 2) Previously covered material 3) Level of expected performance or knowledge 4) Time restrictions 5) Curriculum 6) References 7) Training aids b. Monitoring and evaluation of performance of assistants during class participation 1) To provide feedback 2) To correct errors caused by their performance 3) To determine quality of performance
Use of Simulations (1:30) 0:30	1. Defined: A simulation is an exercise in which field situations are imitated and the student is expected to respond and perform in manner consistent with his/her training 2. Types: a. Programmed patient situations b. Role playing c. Problem solving d. Computer simulations e. Manikins, models and simulators 3. Advantages: a. Contrived experience (second most effective learning method) b. Simulates the field environment c. Prepares students to handle frequently and infrequently encountered situations d. Does not subject real patients to "student" performance e. Allows the instructor to more objectively measure total performance capabilities in his students, including decision making f. Allows the student to more objectively determine if he or she truly wants to pursue a career in EMS g. Subjects students to the stresses of the occupation 4. Disadvantages: a. Time consuming 1) Preparation 2) Presentation 3) Evaluation b. Requires extra personnel c. Requires equipment
Programmed Patient Situations (2:00) 0:30	1. Defined: A programmed patient situation is: A specific type of simulation in which the student is expected to control the scene, assess the patient, prioritize the injuries and provide appropriate treatment

Instructor's Notes

A programmed patient scenario is an effective introduction here

Discuss the use of video tape in the evaluation of simulations

Let people know how much time is really involved

This section is included since programmed patient situations are common in most DOT/NHTSA EMS curricula, if the students

Time (Elapsed) Actual	Contents
	2. Required components for successful simulation training: a. Personnel 1) "Believable" patient 2) "Believable" support case b. Realistic injuries 1) Consistent with mechanism of injury 2) Not overdone c. Appropriate environment 1) Physical location 2) Sights 3) Sounds 4) Smells 5) Temperature 6) Other distractions 7) Props
Methods of Simulating Injuries (2:30) 0:30	1. A makeup kit should include: a. Liners 1) Blue 2) Maroon 3) White 4) Yellow 5) Brown 6) Other b. Pan stick 1) Grey 2) Flesh c. Other 1) Surgical adhesive 2) Glycerin 3) Blood 4) Ashes 5) Brushes 6) Latex sponges 7) Scissors, tweezers, etc. d. Waxes 1) Beeswax compound 2) Mortician's 3. Other moulage should include: a. Sucking wounds b. Bleeding wounds c. Impalements d. Amputations e. Eviscerations
Practical Exercises (3:00) 0:50	1. Working in pairs have each student create a different task analysis on the application of a particular item of equipment. Copy each and share with class so that they can start a portfolio 2. Working in pairs, have each student design a detailed simulation, describing the situation, including the scene, the personnel, and how they would be programmed to respond. All necessary equipment and materials should be detailed
Summary and Questions (3:50) 0:10 (4:00)	1. Class questions or comments on the lesson 2. Ask selected students for demonstration of the objectives

Instructor's Notes

will be instructing in a program where they are inappropriate, e.g., NEAR Monitoring, this section may be deleted or modified

The use of students as patients can be a valuable learning experience for them

This section should be customized to meet local requirements, if possible, each student should at least receive basic instruction in makeup techniques so that they will be able to use programmed patient situations. Adjust times accordingly

This is an important exercise, be certain to allow sufficient time

These exercises should be interspersed throughout the lesson

Question class members on selected objectives

Lesson 9
Providing Student Feedback

Objectives

At the conclusion of lesson 9, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Distinguish between evaluation and feedback
- Define corrective feedback
- Describe why it is important to provide feedback to students
- List 6 general principles of providing feedback to students
- Write 1 example of each of the 4 levels of corrective feedback
- Demonstrate how to provide corrective feedback

Requirements

Material: (One for each student)

- Handouts or references
- Others as required

Equipment:

- 16 mm film projector
- 35 mm slide projector
- Overhead projector
- Video tape recorder/player
- Screen
- Chalkboard/flipchart

Visual Aids: (suggested)

- Prepared audiovisual aids covering the material presented in this lesson

Instructors

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be needed to assist with the practical exercises

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:10	1. **Lesson Coverage** a. Designed to serve as an introduction to the concepts of using corrective feedback as an instructional tool or method in the development of cognitive and psychomotor performance b. It should challenge the student to develop increased communication skills and to examine the methods he or she has used in the past to correct student performance c. Practical exercises should allow the student to apply some of the principles of corrective feedback learned in the session 2. **Need for Lesson.** During his or her career as an EMS instructor, the student will encounter a variety of individuals in the classroom. To facilitate learning and performance the instructor must be able to identify areas of weakness and efficiently provide input to the student to help him or her correct those deficiencies. The general principles introduced in this lesson should increase the effectiveness of such efforts. The tendency to allow marginal or poor performers to "slide" must be reversed to ensure the quality of patient care provided in the field 3. **Lesson Objectives.** By the end of this lesson the student will be able to: a. Distinguish between evaluation and feedback b. Define corrective feedback c. Describe why it is important to provide feedback to students d. List 8 general principles of providing feedback to students e. Write 1 example of each of the 4 levels of corrective feedback f. Demonstrate how to provide corrective feedback
Corrective Feedback (0:15) 0:15	1. **Feedback vs. Evaluation** a. Feedback is an instructional method which is designed to improve subsequent performance b. Evaluation is a comparison of performance against a standard 1) Interim evaluations may provide the basis for feedback 2) Formal certification/licensure may not be instructional in nature 2. **Defined:** Corrective feedback is an instructional technique whereby the instructor analyzes a student's cognitive or psychomotor performance, identifies correct and incorrect components and provides the student with information which will help him or her to make subsequent performance more correct a. Should be a positive experience for the student regardless of the quality of the performance b. Should be a learning process c. Takes place in practice and as the result of interim examinations d. Should not be "critical" in nature e. Should allow student response

Instructor's Notes

Review lesson coverage & objectives. Emphasize the importance of the material to be covered

Refer to lesson objectives in Student Study Guide & review with class

Time (Elapsed) Actual	Contents
	f. Requires careful observation 1) Accurate 2) Known standard 3. **Importance:** a. Lets student know where he or she stands b. Reduces frustrations and tensions in the classroom c. Prevents student from assuming everything is "OK" NO NEWS IS GOOD NEWS d. Avoids problems later during formal evaluations
Providing Corrective Feedback (0:30) 0:15	1. **Principles:** a. Be descriptive, e.g., your hand was in the wrong position b. Be specific, e.g., your assessment of the patient's eyes did not include a pupil check c. Focus on performance, e.g., when approaching the patient be sure to identify yourself d. Share information, e.g., based on that experience, how would you approach a similar situation? e. Be timed, e.g., immediately post performance if the student is ready to listen f. Be private, students don't like to be embarrassed in front of their peers g. Provide feedback in manageable-sized pieces; don't try to change everything at once h. Be positive. Find something good to start with in every performance, make corrections in a positive manner and summarize, emphasizing those things that were done the best 2. **Providing Feedback** a. Focused on behavior which the student can change b. Base it on accurate observation c. Relate to a known standard d. Relate behavior to an effect or outcome
Levels of Corrective Feedback (0:45) 0:15	1. **No Instructor Involvement:** a. Self correcting procedures b. Self analysis of a standard c. Visual, auditory cueing by equipment, e.g., lights on CPR manikin 2. **Verbal Feedback:** a. Descriptions b. Mnemonics c. Cues d. Discussion e. Tape recordings f. Counseling 3. **Written Feedback:** a. Checklists b. Worksheets c. Examination results d. Procedure sheets e. Performance notes

Instructor's Notes

Discuss those students who are not corrected during class & then fail the examination or certification exam

NOT: Judgemental

General

Personality

Advice

Delayed

Public

All at once

Critical

Ask class for examples

Time (Elapsed) Actual	Contents
	4. **Visual Feedback:** a. Demonstrations b. Modeling c. Video tapes d. Computer interactions 5. **Physical Feedback:** a. Shadowing b. Prompting c. Assist with proper placement
Practical Exercises (1:00) 0:50	1. Working in pairs, have each student watch a performance and provide feedback to their partner 2. Have the student receiving feedback describe how they felt and make suggestions for a more positive approach
Summary and Questions (1:50) 0:10	1. Class questions or comments on the lesson 2. Ask selected students for demonstration of the objectives
(2:00)	

Instructor's Notes

Stress importance of task analysis in providing feedback for skills

Not abusive or punishing

This exercise may be conducted in small groups to allow for a broader range of feedback. It also helps to prepare students for mini-presentations

Question class members on selected objectives

Lesson 10
Evaluating Student Performance

Objectives

At the conclusion of lesson 10, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Define evaluation
- Distinguish between formal and informal evaluation
- Identify 4 types of evaluation tools
- Identify the 3 advantages of each type of evaluation tool as it relates to cognitive and/or psychomotor performance
- Identify 3 disadvantages of each type of evaluation tool as it relates to cognitive or psychomotor performance
- Define reliability
- Define content validity
- Develop 2 examples of correctly constructed test items for cognitive evaluation in each of following categories: multiple choice, true/false, completion, matching and essay
- Develop a skills checklist to evaluate psychomotor performance

Requirements

Material: (One for each student)

- Handouts or references
  - — Blueprint for test construction
  - — Rote skill checklist
  - — Performance evaluation checklist (Samples of these are provided in Appendix D)
- Others as required

Equipment:

- 16 mm film projector
- 35 mm slide projector
- Video tape recorder/player
- Overhead projector
- Screen
- Chalkboard/flipchart

Visual Aids: (suggested)

- Prepared visual aids covering the material presented in this lesson

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be necessary to assist with the practical exercises

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Select and prepare appropriate instructional aids in addition to those provided by the Course Administrator, if desired
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:05	1. **Lesson Goals** a. To provide the student with a cursory introduction to evaluation instruments and processes b. To assist the student in selecting evaluation tools which are appropriate to course objectives c. To enable the student to develop effective test items for use in their training programs d. To prepare the student to utilize both formal and informal evaluation processes to assess achievement of specific performance objectives e. To introduce students to rudimentary analysis of test results 2. **Need for Lesson.** Multiple situations exist where evaluation will be necessary. The effectiveness of training programs depends on student achievement of the stated objectives for the program. Instructors must understand the principles of evaluation and must be able to use effective evaluation tools to assess student progress and performance 3. **Lesson Objectives.** By the end of this lesson the student will be able to: a. Define evaluation b. Distinguish between formal and informal evaluation c. Identify 4 types of evaluation tools d. Identify 3 advantages of each type of evaluation tool as it relates to cognitive and/or psychomotor performance e. Identify 3 disadvantages of each type of evaluation tool as it relates to cognitive or psychomotor performance f. Define reliability g. Define content validity h. Develop 2 examples of correctly constructed test items for cognitive evaluation in each of following categories: multiple choice, true/false, completion, matching and essay i. Develop a skills checklist to evaluate psychomotor performance
Evaluation (0:10) 0:10	1. **Defined:** Evaluation is a mechanism of determining student progress toward, or the attainment of stated cognitive and psychomotor objectives a. As performed by the learner b. As taught by the instructor 2. **Methods:** a. Formal: Structured cognitive or psychomotor instrument to assess student's attainment of interim and/or terminal course objectives b. Informal: A less structured method of assessing student achievement during the training program, used primarily to provide corrective feedback

Instructor's Notes

If new instructor introduce self and other faculty

Refer to the Student Study Guide and review objectives with the class

Provide examples

Time (Elapsed) Actual	Contents
	3. Types a. Written examinations b. Practical examinations c. Oral examinations d. Workbook, project, classroom assignments e. Observational reports
Types of Evaluation Tools (0:20) 0:30	1. Written examinations a. Objective questions 2. Advantages a. Can be used with large numbers of students b. Measures cognitive objectives c. Provides for consistent scoring d. Easy to score 3. Disadvantages a. Time consuming to develop b. Complex validation procedures c. Discriminates against poor readers d. Cannot measure performance 4. Essay questions a. Advantages 1) Easy to prepare 2) Assesses student recall 3) Assesses analytic skill 4) Provides for evaluation of written language skills b. Disadvantages 1) Extended time to score 2) Objective scoring is difficult 3) Discriminates against students with poor language skills 5. Practical Exams (situational or rote) a. Advantages 1) Most closely approximates field conditions 2) Allows observation and evaluation of related behaviors and attitudes 3) Allows evaluation of psychomotor skills 4) Allows evaluation of decision making and leadership skills b. Disadvantages 1) Difficult to standardize 2) Time consuming to prepare and deliver 3) Requires numerous personnel 4) Limited in numbers examined at any one time 6. Oral Examinations a. Advantages 1) Evaluates "quick thinking" or reactions 2) Evaluates the student's thought processes 3) Can be evaluated by multiple listeners simultaneously

Instructor's Notes

Discuss the advantages & disadvantages of each method from both the instructor's & the student's perspective

Time (Elapsed) Actual	Contents
	b. Disadvantages 1) Can test only a limited number at any one time 2) Difficult to standardize 3) Examiner may give clues 4) Time consuming 5) Personalities may influence outcome (subjectively) 7. Project Assignments a. Advantages 1) Allows independent completions 2) Evaluates ability to synthesize data b. Disadvantages 1) Plagarism may be prevalent 2) Difficult to standardize 3) Measures only the product of performance 8. Observational Reports a. Advantages 1) Reliability is inherent due to repeated observation 2) Can be used for psychomotor or affective evaluation 3) Reliability can be increased by increasing observations b. Disadvantages 1) Presence of evaluator may influence student performance 2) Time consuming 3) Developing the criteria sheet is a complex task
Reliability (0:50) 0:05	1. Define: Reliability is the consistency of the measurement device a. Does it measure a given behavior or body of knowledge consistently on different occasions? b. Does the environment influence consistency? c. Do different administrators influence results? d. Does it discriminate against groups or individuals?
Content Validity (0:55) 0:10	1. Define: Content validity is the ability of an examination process to measure the knowledge and skills it was intended to measure, in accordance with the curriculum objectives a. Are the subtests weighted and distributed properly? b. Does it cover a reasonable sample of the knowledge and skill objectives? c. Is it an accurate predictor of field performance?
Developing Specific Types of Test Items (1:05) 0:20	1. Multiple Choice a. Creating the stem (the main part of the concept to which a word or phrase is added to complete). Use a positive form 1) Use only one best answer b. Creating seductive or plausible distractors 1) Avoid using absolute modifiers 2) Make distractors grammatically consistent with the stem

Instructor's Notes

Ask students for examples

Discuss the use of the test blueprint handout

Samples of each type of item may be useful

Avoid "all except"

Example, always, never

Example, a/an, is/are

Time (Elapsed) Actual	Contents

3) Make them within the realm of possibility
4) Make distractors and answers approximately the same length

c. Steps in writing multiple choice questions:
1) Confine each topic to a single question
2) Select content area
3) Determine what you expect the student to know or do
4) Decide what goes into the stem
5) List plausible distractors
6) Complete the item
7) Review draft item
a) By another
b) By yourself, later
8) Refine

2. Writing True/False Items
a. Eliminate absolutes
b. Include one idea per item
c. Make true and false statements about the same length
d. Arrange items so that true or false answers appear randomly
e. Provide for a relatively equal distribution of true and false responses

3. Writing Matching Items
a. Set should consist of 3 to 8 items
b. Should all be on the same page
c. Use more responses than items

4. Writing Completion Items
a. Omit key words or phrases, not trivia
b. Allow one "point" for each blank
c. Make blanks uniform in length
d. Assure that only one correct answer can complete the item
e. Avoid text book language to reduce verbal association
f. Specify terms or units that the answer is to be given in

5. Writing Essay Items
a. Require application of the essential knowledge
b. Write specific questions which can be answered briefly
c. Write answers to each item to be used in grading

General Test Construction Guidelines
(1:25) 0:10

1. Test Construction Principles
a. Write your test early
b. Relate test to objectives
c. Weigh subtests appropriately
d. Group like items together
e. Allow 1 minute per item for student completion
f. Make certain that answers are positioned randomly
g. Put the exam away
h. Reread and evaluate the exam
i. After the examination check each item for discrimination

Instructor's Notes

e.g., cc.

e.g., Matching

Not all "Cs"

Review by others is helpful

Time (Elapsed) Actual	Contents
	j. Check to see if the upper ⅓ of class consistently missed a specific item. If so: 1) Was material taught 2) Is test item keyed correctly 3) Is test item constructed properly k. Check to see if the lower ⅓ of class consistently missed a specific item. If so: 1) Which distractors were most attractive 2) Improve distractors which were not attractive 3) If not consistently missed by upper group this item is working well
Practical Skill Evaluations (1:35) 0:20	1. Evaluate intent a. Rote mechanical skills 1) Requires simple task analysis 2) Is the easiest skill examination to administer 3) May or may not reflect field performance b. Judgement and/or decision making: 1) Requires more elaborate simulations 2) More difficult to develop and deliver 3) Is a more accurate predictor of field performance 2. Simple skill evaluation a. Define the skill 1) Determine the degree of expected proficiency 2) Select a representative sampling, if all skills in a given area are not evaluated b. Create a written task analysis of the skill c. Develop checklist commensurate with the analysis d. Each step should contain some measurable criteria so all evaluators can agree on successful completion of each step e. Keep each independent step to be checked to a minimum to reduce errors in evaluation f. Allow for evaluator to merely observe task 3. Performance evaluations: a. Define outcome 1) Are skills or decision making more important in the situation 2) How stressful or complicated a situation is the student prepared to handle? 3) How many resources does the instructor have available? 4) What standards will be used? b. Design the situation to be representative of the desired outcome 1) Realistic environment 2) Realistic injuries 3) Simulate situation and responses as accurately as possible c. List all activities which should ideally be completed in the situation 1) Prioritize sequence 2) Weigh most important aspects appropriately

Instructor's Notes

Discuss problems of inter-rater reliability inherent in situational examinations

Time (Elapsed) Actual	Contents
	d. Checklists should contain: 1) Steps which are independently observable and measurable 2) Steps described as independent 3) The minimum number of steps necessary to complete the task 4) An outcome concensus understood by each evaluator e. Avoid qualification of student performance by the evaluator f. Assure adequate organization to ensure outcome of a situationally oriented performance evaluation
Characteristics of Good Skill/Performance Evaluations (1:55) 0:10	1. Characteristics a. Objectivity 1) Of the instrument 2) Of the observer b. Replicability. Does the instrument measure similar performances consistently 1) From one student to another 2) From one class to another 3) From one location to another c. Fairness 1) Standards known by students 2) Practice provided with similar instruments during training d. Realism 1) Situation is plausible 2) External distractions are realistic 3) Stress is similar to field environment
Practical Exercises (2:05) 0:50	1. Have each student independently prepare two test items for each of the following types of evaluation instruments: multiple choice, true/false, completion, matching and essay 2. Have each student independently prepare one rote psychomotor checklist and one situationally oriented performance checklist to evaluate judgement or decision making
Summary and Questions (2:55) 0:05	1. Class questions or comments on this lesson 2. Ask selected students for demonstration of the objectives
(3:00)	

Instructor's Notes

Standardized forms will help expedite this process

Question selected class members on objectives

Lesson 11
Mini Presentation Two

Objectives

At the conclusion of lesson 11, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- Prepare a lesson plan for an 8 to 10 minute presentation on an EMS related topic either assigned by the Instructor Trainer or selected by the student
- Ensure that the lesson plan contains all of the essential components and is in a format similar to the standard DOT Instructor's Lesson Plan
- Present an 8 to 10 minute instructional session on an EMS related topic
- Observe other student's presentations and provide positive suggestions for improvement of subsequent lessons

Requirements

Material:

- Handouts or references
  - Mini presentation feedback forms. (An example is provided in Appendix B.)
- Others as required:

Equipment:

- 16 mm film projector
- 35 mm slide projector
- Video tape recording equipment
- Overhead projector
- Screen
- Chalkboard/flipchart
- Others that may be requested by the students to support their presentations

Visual Aids: (suggested)

- Blank overhead transparencies
- Others that may be requested by the students to support their presentations

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles
- Additional instructors may be needed to assist with the practical exercise, if the class is so large as to require breaking into smaller groups

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:10	1. **Lesson Coverage** a. To provide an opportunity for the student to plan, prepare, present and receive corrective feedback on an 8 to 10 minute presentation on an EMS related topic b. To review other individuals' presentations to help the student to develop and practice principles of positive corrective feedback c. To provide an opportunity for the faculty to observe the student's presentation manner and style and to use that information to partially evaluate the student's overall performance within the class 2. **Need for Lesson.** During his or her career as an EMS instructor, the student will be called upon to present a variety of materials to his or her students. Fundamentals of planning, preparation and presentation introduced in this class will serve as a valuable experience for the student. It also reinforces the principle that the best way to learn something is by doing it 3. **Lesson Objectives.** Upon completion of this lesson the student will be able to: a. Prepare a lesson plan for an 8 to 10 minute presentation on an EMS related topic, either assigned by the Instructor Trainer or selected by the student b. Ensure that the lesson plan contains all of the essential components and is in a format similar to the standard DOT Instructor's Lesson Plan c. Present a 8 to 10 minute instructional session on an EMS related topic d. Observe other student's presentations and provide positive suggestions for improvement of subsequent lessons
Final Preparations (0:15) 0:15	1. Provide materials and support for the final development of the lesson plans a. Answer final questions b. Review lesson plans and check format c. Encourage and calm anxious students
Presentations (0:30) 5:20	1. Have each student present the material contained within his or her lesson plan a. Select and introduce students b. Monitor time c. Be supportive
Evaluation (0:30) 5:20	1. Keep feedback positive a. Control peers b. Control self c. Control self criticism

Instructor's Notes

If new instructor, introduce self and other faculty

Refer to Student Study Guide and review objectives with students

Presentations & evaluation feedback should be conducted simultaneously

Watch for and comment on non-verbal communications

Time (Elapsed) Actual	Contents
	2. Video tape a. Strongly recommended to record student presentations 1) May be reviewed by individual student or the entire group 2) Review must be monitored by an instructor 3) Feedback to students cannot be totally dependent on VTR in the event of equipment failure or lack of availability 3. Written feedback a. Use standardized forms b. Be objective c. Have peers complete also d. Provide to student as soon as possible without disrupting the class 4. Peer review a. Direct activity b. Keep positive c. Provide feedback to peers on manner of feedback delivery as part of the exercise
Summary and Questions (5:50) 0:10 (6:00)	1. Ask for questions or comments on the lesson 2. Question class members on selected objectives 3. End on a positive note

Instructor's Notes

Lesson 12 Orientation to DOT/NHTSA Format and Materials

Objectives

At the conclusion of lesson 12, the instructor will have provided sufficient information, demonstration and practice to the student to ensure his/her ability to:

- List at least 6 DOT/NHTSA EMS Curricula titles
- Order any desired DOT/NHTSA Curricula package from the appropriate Government Agency
- Name the controlling State agency for the curriculum s/he intends to teach
- Identify any local, regional or State resources which should be contacted for materials, equipment, manpower or supplies prior to beginning an instructional program

Requirements

Material: (One for each student)

- Handouts or references
  - Price list and ordering information for DOT/NHTSA EMS curricula. (A sample is provided in Appendix D. Make certain that you have the most up to date list, contact DOT/NHTSA, EMS Division)
- Others as required

Equipment:

- Overhead projector
- Screen
- Chalkboard/flipchart

Visual Aids: (suggested)

- Prepared audiovisual aids covering the content outlined in this lesson

Instructors:

- One instructor knowledgeable in the content area and also recognized as an effective trainer who can model effective presentation styles

Instructor Preparation/ Tasks

The Instructor Should:

- Review the lesson outline to ensure understanding of the contents and procedures
- Review and preview all references and visual aids selected for the lesson by the Course Administrator
- Be able to familiarize the student as to the content and purpose of all course literature to be presented during this lesson
- Be familiar with local, regional and State resources available to assist instructors in the planning, delivery, and evaluation of DOT/NHTSA EMS curricula packages
- Be knowledgeable of any local or State requirements or regulations concerning EMS instructional programs

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Instructor introduction a. Name b. Title c. Affiliation, etc. 2. Student attendance 3. Announcements, etc.
Introduction (0:05) 0:05	1. **Lesson Goals** a. Designed to serve as an opportunity for the student to become familiar with the DOT/NHTSA EMS curricula packages b. Additional resources which may be available to the instructor on a local, regional or state level should be identified and discussed and will serve as valuable resources to a beginning instructor 2. **Need for Lesson.** During his or her career as an EMS instructor the student will, hopefully, teach many EMS related courses. As has often proven to be the case, these courses will not be limited to a singular content area, but may overlap into several different programs. The student needs to be familiar with the available materials and resources in each of the related content areas. This lesson is designed to ensure that s/he can properly prepare, present and evaluate each of the training levels in accordance with local, state and national standards and guidelines 3. **Lesson Objectives.** At the end of this lesson the student will be able to: a. List at least 6 DOT/NHTSA EMS curricula titles b. Order any desired DOT/NHTSA curriculum package from the appropriate government agency c. Name the controlling State agency for the curriculum s/he intends to teach d. Identify any local, regional or State resources which should be contacted for materials, equipment, manpower or supplies prior to the beginning of a training program
DOT/NHTSA EMS Curricula Materials (0:10) 0:10	1. Emergency Medical Services: First Responder Training Course (1979) (formerly titled Crash Injury Management for First Responders) a. Source: GPO (Gov't. Printing Office) b. Order Number: 1) Course Guide: 050-003-00360-3 2) Instructor Lesson Plans: 050-003-00361-1 3) Student Study Guide: 050-003-00362-0 **Note:** A Refresher Training Program for the First Responder is under development. Anticipated publication date January 1986 2.Emergency Medical Technician—Ambulance (3rd Edition 1984) a. Source: GPO b. Order Number: 1) Course Guide: 050-003-00421-1 2) Instructor Lesson Plans: 050-003-00422-7 3) Student Study Guide: 050-003-00421-9 **Note:** A Refresher Training Program for the Emergency Medical Technician—Ambulance is under development. Anticipated publication date April 1986.

Instructor's Notes

If new instructor, introduce self and other faculty

Refer to Student Study Guide and review the objectives with the students

Summarize intent and content of each package, identify format similarities and differences

GPO address: Superintendent of Documents, GPO, Washington, D.C. 20402

Time (Elapsed) Actual	Contents

3. Emergency Medical Technician Intermediate Training Course
   This 1st Edition is under development. It will consist of a Course Guide, Instructor Manual, and Student Study Guide. Anticipated publication date is January 1986.
4. Emergency Medical Care: Paramedic---A Manual for the Paramedic in the Field (1983)
   a. Source: GPO
   b. Order Number: 050-003-00413-8

Note: This is a textbook and workbook for the trainee and can also be used as a reference manual for the paramedic in the field.

5. Emergency Medical Care: Paramedic Instructor Manual
   This instructor manual is under development. Anticipated publication date, April 1986. This manual will be in a single volume and will replace the 15 separate (modules) publications which were published in 1977. Some of the 15 modules (1977) are out of print and will not be reprinted.
6. Emergency Medical Service—Dispatcher: National Standard Curriculum, Second Edition, 1983
   a. Source: GPO
   b. Order Number
      1) Course Guide: 050-003-00417-1
      2) Instructor Lesson Plans: 050-003-00416-2
      3) Student Study Guide: 050-003-00415-4
7. Training Program for Operation of Emergency Vehicles (1978)
   a. Source: GPO
   b. Order Number:
      1) Course Guide: 050-003-00330-1
      2) Instructor Lesson Plans: 050-003-00332-8
      3) Training Study Guide: 050-003-00331-0
8. Crash Victim Extrication Training Course, (Revised April 1979)
   a. Source: GPO
   b. Order Number:
      1) Instructor's Manual: 050-003-00343-3
      2) Student's Manual: 050-003-00344-1
   c. Package, including slides and two manuals
      1) Source: NAVC
      2) Order Number: A01927
9. Hazardous Materials, 1980 Emergency Response Guidebook
   a. Source: J. J. Keller and Associates, 145 W. Wisconsin Ave., Neenah, Wisc. 54956
   b. Order Number: DOT p 5800.2
10. Motor Vehicle Trauma Slides
    a. Source: NAVC
    b. Order Number: A 00925/DJ
11. 16 mm Film: *Between Life and Death*, Color, 25 min.
    a. Source: NAVC
    b. Order Number: 010-687

Instructor's Notes

NAVC address: National Audiovisual Center, Sales Branch GSA, Washington, D.C. 20409

Time (Elapsed) Actual	Contents
Local and State Agencies (0:20) 0:10	1. Responsible for a. Approving Training 1) Requirements 2) Mechanism 3) Forms 4) Contact person or agency b. Monitoring Training 1) Requirements 2) Procedures c. Certification/Licensure of Students 1) Requirements 2) Procedures 3) Mechanism 4) Forms 5) Contact person or agency d. Certification/Licensure of Instructors 1) Requirements 2) Procedures
Local, Regional and State Resources (0:30) 0:20	1. Materials: a. Audiovisual b. Printed Matter 2. Equipment a. EMS b. Instructional 3. Manpower a. Instructors b. Assistants c. Patients, etc. 4. Facilities a. Teaching b. Clinical
Summary and Questions (0:50) 0:10	1. Class questions or comments on this lesson or any portion of the course 2. Ask selected students for demonstration of the objectives 3. Have each student complete a training program evaluation form 4. Thank all faculty and students for their participation. End on a positive note
(1:00)	

Instructor's Notes

Discuss rules, regulations and other requirements

Ask students for suggestions for other resources

Question selected class members on the objectives

Appendix A: Sample Course Schedules

Example 1: 40-Hour Block

Monday	8:00 A.M.	Registration
	8:30	Welcome and Introduction
	9:00	Lesson 1: Principles of Adult Learning
	11:00	Lunch
	12:30 P.M.	Lesson 2: Student Learning Styles
	3:30	Break
	4:00	Lesson 3: Development and Utilization of Instructional Objectives
Tuesday	8:00 A.M.	Lesson 4: Preparing and Using Lesson Plans
	12:00 P.M.	Lunch
	1:00	Lesson 5: Preparation and Use of Instructional Aids
Wednesday	8:00 A.M.	Lesson 6: Class Participation Techniques
	12:00 P.M.	Lunch
	1:00	Lesson 7: Mini Presentation One
Thursday	8:00 A.M.	Lesson 8: Practical Skill Instruction
	12:00 P.M.	Lunch
	1:00	Lesson 9: Providing Student Feedback
	3:00	Break
	3:30	Lesson 10: Evaluating Student Performance
Friday	9:00 A.M.	Lesson 11: Mini Presentation Two
	12:00 P.M.	Lunch
	1:00	Lesson 11: Continued
	3:00	Break
	3:30	Lesson 12: Orientation to DOT/NHTSA Format and Materials
	4:30	Evaluation and Feedback

Note: While it is possible to provide this training in a compressed time frame of one week, generally better results are achieved if the course is spread out over a longer period of time. This allows for more practical skill application and independent study on the part of the student. Of course, following the principles of adult learning introduced in this course, longer lessons should be incorporated with breaks as needed.

Example 3: Semiweekly Evening Classes

Monday	7:00 P.M.	Registration
	7:30	Welcome and Introduction
	8:00	Lesson 1: Principles of Adult Learning
Wednesday	7:00 P.M.	Lesson 2: Student Learning Styles
Monday	7:00 P.M.	Lesson 3: Development and Utilization of Instructional Objectives
Wednesday		Lesson 3: Continued
Monday	7:00 P.M.	Lesson 4: Preparing and Using Lesson Plans
Wednesday	7:00 P.M.	Lesson 4: Continued
Monday	7:00 P.M.	Lesson 5: Preparation and Use of Instructional Aids
Wednesday	7:00 P.M.	Lesson 5: Continued
Monday	7:00 P.M.	Lesson 6: Class Participation Techniques
Wednesday	7:00 P.M.	Lesson 6: Continued
Monday	6:00 P.M.	Lesson 7: Mini Presentation One
Wednesday	7:00 P.M.	Lesson 8: Practical Skill Instruction
Monday	7:00 P.M.	Lesson 8: Continued
Wednesday	7:00 P.M.	Lesson 9: Providing Student Feedback
Monday	7:00 P.M.	Lesson 10: Evaluating Student Performance
Wednesday	7:00 P.M.	Lesson 10: Continued
Saturday	9:00 A.M.	Lesson 11: Mini Presentation Two
	12:00 P.M.	Lunch
	1:00	Lesson 11: Continued
	4:00	Break
	4:15	Lesson 12: Orientation to DOT/NHTSA Format and Materials
	5:15	Evaluation and Feedback

Note: While this option takes considerably longer to complete it provides for substantially greater opportunities to develop and apply the practical skills contained within the course. Many additional variations are possible, however, the Mini Presentations in lessons 7 & 11 should be completed in one block.

Friday	6:00 P.M.	Registration
	6:30	Welcome and Introduction
	7:00	Lesson 1: Principles of Adult Learning
Saturday	8:00 A.M.	Lesson 2. Student Learning Styles
	11:00	Lesson 3: Development and Utilization of Instructional Objectives
	12:00 P.M.	Lunch
	1:00	Lesson 3: Continued
	3:00	Break
	3:30	Lesson 4: Preparing and Using Lesson Plans
Sunday	8:00 A.M.	Lesson 5: Preparation and Use of Instructional Aids
	12:00 P.M.	Lesson 6: Class Participation Techniques
	4:00	Evaluation, feedback & assignments
Friday	7:00 P.M.	Completion of assignments
Saturday	8:00 A.M.	Lesson 7: Mini Presentation One
	12:00 P.M.	Lunch
	1:00	Lesson 8: Practical Skill Instruction
	5:00	Dinner
	6:30	Lesson 9: Providing Student Feedback
Sunday	9:00 A.M.	Lesson 10: Evaluating Student Performance
	12:00 P.M.	Lunch
	1:00	Lesson 11: Mini Presentation Two
	5:00	Dinner
	6:00	Lesson 11: Continued
	8:00	Break
	8:15	Lesson 12: Orientation to DOT/NHTSA Format and Materials
	9:15	Evaluation and Feedback

Note: A number of additional variations are possible. It is recommended however that the sequence of the lesson remains as presented.

Appendix B
Student Mini—Presentation Evaluation Form

Mini Presentation Evaluation Form

Presentor _____

Subject _____

*1	2	3

1. Lesson objectives were made clear to students
2. Lesson introduction created interest and established the need to know
3. All needed supplementary teaching/learning items were ready and organized
4. Instructor maintained proper position for all students to see presentation
5. Aids were well-planned, well-developed, and used appropriately
6. Vocabulary was at appropriate levels
7. The instructor regularly checked with students to see if they were on target
8. Information was presented in an organized format
9. Skill demonstration was presented in a logical step-by-step sequence
10. Appropriate teaching method(s) was (were) selected to accomplish objectives
11. The instructor's delivery was poised, effective and geared to the topic
12. Instructor stayed on the subject
13. Lesson was too long ( )
    too short ( ) for content
14. Summation and closure were effective

What were this instructor's strengths?

Where might this instructor improve?

* 1=AVERAGE 2=GOOD 3=EXCELLENT

Appendix C
Instructor Training Program Evaluation Form

Student Evaluation Form

Unit: _____

Directions

Please evaluate the materials and content of this unit on the nine items below. Try to focus on its content and format as opposed to the presentor, then answer the additional questions. On the back, please comment on the unit's strength, weakness, and any suggested changes.

organized	1	2	3	4	5	6	unorganized
well formated	1	2	3	4	5	6	poorly formated
interesting	1	2	3	4	5	6	boring
useful	1	2	3	4	5	6	useless
relevant	1	2	3	4	5	6	irrelevant
clear	1	2	3	4	5	6	unclear
comprehensive coverage	1	2	3	4	5	6	poor coverage
practical	1	2	3	4	5	6	impractical
appropriate	1	2	3	4	5	6	inappropriate

previous level of knowledge

high	1	2	3	4	5	6	low

level of involvement

high	1	2	3	4	5	6	low

presentor was

informed	1	2	3	4	5	6	uninformed
articulate	1	2	3	4	5	6	inarticulate
stimulating	1	2	3	4	5	6	boring

Appendix D
Selected References on Instruction and Learning

Periodicals

How to Evaluate Training Programs, Capital Publications, 1300 N 7th Street, Arlington, VA (Monthly)

Phi Delta Kappan, Phi Delta Kappa, Inc., P.O. Box 789, Bloomington, IN (Monthly)

Training and Development Journal, American Society for Training and Development, 606 Maryland Avenue SW, Washington, DC (Monthly)

Training: The Magazine of Human Resource Development, Lakewood Publishing, Inc., 731 Hennepin Avenue, Minneapolis, MN (Monthly)

Books

1. **Principles of Teaching and Learning**

Gagne, R. M.: *Essentials of Learning for Instruction*. Holt, Rhinehart and Winston, New York, 1974.

Gagne, R. M.: *The Conditions of Learning*. Holt, Rhinehart and Winston, New York, 1965.

Craig, R. L. (Ed.): *Training and Development Handbook*. McGraw-Hill, New York, 1976.

Kidd, J. R.: *How Adults Learn*. (2nd Ed), Associate Press, Chicago IL, 1979.

Knowles, M. S.: *The Adult Learner: A Neglected Species*. Gulf, Houston TX, 1973.

Knowles, M. S.: *The Modern Practice of Adult Education*. Association Press, New York, 1970.

Laird, D.: *Approaches to Training and Development*. Addison-Wesley, Reading MA, 1978.

Mager, R. F.: *Measuring Instructional Intent or Got a Match*. Fearon Publishing, Belmont CA, 1977.

Mager, R. F. and Beach, K.: *Developing Vocational Instruction*. Fearon Publishing, Belmont CA, 1978.

Mager, R. F. and Pipe, P.: *Analyzing Performance Problems*. Fearon Publishing, Belmont CA, 1976.

Scollon, R. and Scollon, S. B. K.: *Interethnic Communication*. Alaska Native Language Center, University of Alaska, Fairbanks AK, 1980.

2. **Performance Objectives**

Bloom, B. (Ed.): *Taxonomy of Educational Objectives—The Affective Domain*. Donald McKay, New York, 1956.

Bloom, B. (Ed.): *Taxonomy of Educational Objectives—The Cognitive*. Donald McKay, New York, 1964.

Gronlund, N. E.: *Stating Behavioral Objectives for Classroom Instruction.* Macmillan, New York, 1970.

Mager, R. F.: *Preparing Instructional Objectives.* (2nd Ed.), Fearon Publishing, Belmont CA, 1975.

Vargas, J. S.: *Writing Worthwhile Behavioral Objectives.* Harper and Row, New York, 1972.

3. **Instructional Aids**

Anderson, R. H.: *Selecting and Developing Media for Instruction.* Van Nostrand Reinhold, New York, 1976.

Brown, J. W. and Lewis, R. B. (Eds.): *AV Instruction: Technology, Media and Methods.* (5th Ed.), McGraw-Hill, New York, 1977.

Johnson, S. R. and Johnson, R. B.: *Developing Individualized Instructional Material.* Westinghouse Learning Press, Palo Alto CA, 1970.

4. **Practical Skills Instruction**

Horn, R. and Zuckerman, D. W.: *The Guide to Simulation/Games for Education and Training.* Information Resources, Lexington MA, 1976.

5. **Evaluation**

Becker, W. C.: *Teaching 3—Evaluation of Instruction.* Sciences Research Associates, Chicago Il, 1976.

Denova, C. C.: *Test Construction for Training Evaluation.* Van Nostrand Reinhold, New York, 1979.

Ebel, R.: *Essential of Educational Measurement.* (2nd Ed.), Prentice-Hall, Englewood Cliffs NJ, 1978.

Gronlund, N. E.: *Measurement and Evaluation in Teaching.* Macmillan, New York, 1965.

Kirkpatrick, D. L. (Ed.): *Evaluating Training Programs. A Collection of Articles From the Journal of the American Society for Training and Development.* ASTD, Madison WI, 1975.

Popham, W. J.: *Evaluation in Education.* McCutchan, Los Angeles, CA, 1974.

Selected Articles

Broadwell, M. M.: *How to Improve the Next Batch of Course Objectives You Write.* TRAINING, May 1976, Page 50.

Broadwell, M. M.: *The Use and Misuse of A-V.* TRAINING, October 1970, Page 40.

Calkins, C. F., Sanddal, N. D. and Gibson, B. A.: *Characteristics of a Competent EMT Instructor.* THE EMT JOURNAL, 5 (2):134, April 1981.

Corbett, N. A., et al: *Simulation as a Tool for Learning*. TOPICS IN CLINICAL NURSING, October 1982, Page 58.

Mallory, W. J.: *Simulations for Task Practice in Technical Training*. TRAINING AND DEVELOPMENT JOURNAL, September 1981, Page 13.

Meier, R. S., et al: *A Method for Training Simulated Patients*. JOURNAL OF MEDICAL EDUCATION, July 1982, Page 535.

Miller, M.: *Test Construction—Principles and Methods*. JOURNAL OF EDUCATION, September/October 1979, Page 21.

Sanddal, N. D.: *Using Needs Assessment to Design Continuing Education Programs*. THE EMT JOURNAL. 5 (6):436, December 1981.

Sanddal, N. D.: *Corrective Feedback: The Tool for Achieving Performance Standards*. THE EMT JOURNAL, 5 (5):352, October 1981.

Sanddal, N. D. and Threet, K. L.: *Programmed Patients: A Method of Improving Field Performance*. The EMT JOURNAL, 5 (4):275, August 1981.

Sanddal, N. D. and Shorthill, J. L.: *Task Analysis: Roadmaps to Skill Performance*. THE EMT JOURNAL, 5 (3):210, June 1981.

Sanddal, N. D.: *Instructional Design: The Format for Performance*. THE EMT JOURNAL, 5 (1):54, February 1981.

Sanddal, N. D. and Calkins, C. F.: *EMT Training: Roles, Responsibilities and Performance Outcomes*. THE EMT JOURNAL, 4 (4):66, December 1980.

Waddell, G.: *Simulation—Balancing the Pros and Cons*. TRAINING AND DEVELOPMENT JOURNAL, January 1982, Page 80.

Weigel, A.: *Examining EMT Education: A Shift in Emphasis*. EMERGENCY HEALTH SERVICES REVIEW, Vol 2(1), 1983, Page 55.

Appendix E
Suggested Student Handouts

Lesson 3: Development of Utilization of Instructional Objectives
Lesson 4: Preparing and Using Lesson Plans
Lesson 7 & 11: Mini Presentations
Lesson 10: Evaluating Student Performance
Lesson 12: DOT/NHTSA Materials

Appendix E
Lesson 3: Development and Utilization of Instructional Objectives

Medical Emergencies I Objectives

Sample of Instructional Objectives

At the conclusion of Lesson 19, the instructor will have provided sufficient information, demonstration, and practice to the student, to ensure his/her ability to:

- Define poison.
- List four ways for poison to enter body and give two examples of each.
- State how to contact nearest poison control center.
- List seven signs/symptoms of poisoning.
- List the immediate steps in emergency care of poisoned patient.
- List three circumstances when vomiting should NOT be induced in patients suffering from ingested poison.
- State how to induce vomiting in adult patient.
- State how to induce vomiting in a child.
- State emergency care of unconscious victim of poisoning.
- List emergency care for victims of inhaled poison.
- List emergency care for victims of injected poison.
- List emergency care for victims of absorbed poison.
- List five signs/symptoms of patient suffering allergic reaction to an insect sting.
- State emergency care for a patient suffering allergic reaction to an insect sting.
- State physical characteristics of a pit viper and a coral snake.
- List four signs/symptoms of patient bitten by pit viper.
- List four signs/symptoms of patient bitten by coral snake.
- List emergency care for snake bites.
- List three examples of stinging marine animals.
- Describe emergency care for marine animal stings.
- List three examples of marine animals that can cause puncture wounds.
- Describe emergency care for puncture wounds from marine animals.
- Define atherosclerosis.
- Define myocardial infarction.
- List four risk factors associated with heart disease.
- List three causes of heart attack.
- Define angina pectoris.
- List signs/symptoms of angina.
- List signs/symptoms of heart attack.
- List the emergency care/treatment for angina.
- List the emergency care/treatment for MI.
- Define chronic congestive heart failure.
- List signs/symptoms of congestive heart failure.
- State the emergency care for congestive heart failure.
- Define stroke.
- List three causes of stroke.
- List seven signs/symptoms of stroke.
- Describe steps in treatment of stroke patients.
- List special considerations for treatment of stroke patients.
- Define dyspnea.
- Define pulmonary edema.
- Define chronic obstructive pulmonary disease.
- List three non-traumatic causes of dyspnea.
- List signs/symptoms of pulmonary edema.
- List signs/symptoms of COPD.
- Define hyperventilation.
- List signs/symptoms of hyperventilation.

- List steps in treatment of hyperventilation.
- Provide practice for objectives for lessons in CPR and mechanical aids to resuscitation.

Requirements

Equipment:

- Adult resuscitation manikin (one for each six students).
- Infant resuscitation manikin (one for each six students).
- Appropriate quantities of antiseptic solution and gauze pads.
- Oropharyngeal airways (one for each six students).
- Nasopharyngeal airways (one for each six students).
- Portable suction unit (one for each six students).
- Oxygen equipment—complete (one for each six students).
- Nasal cannula and mask (one set for each six students).
- Pocket mask with oxygen inlet valve (one for each six students).
- Venturi mask, partial and non re-breathing (one for each six students).
- Bag-valve-mask (one for each six students).
- 35mm projector.
- Movie screen.
- Chalkboard.

Visual Aids:

—35mm slides AAOS or similar.

Instructors:

—One for lecture, knowledgeable in all areas of subject matter for this lecture.

—One for each six students during practice session.

Instructor Preparation/Tasks

The Instructor Should:

- Review the lesson outline to assure understanding of contents and procedures.
- Review and preview all references and visual aids selected for the lesson by the course administrator.
- Select and prepare appropriate instructional aids in addition to those provided by the course administrator; if desired.
- Be familiar with all visual aids and other equipment to be demonstrated during the lesson.
- Provide the student with a clear understanding of signs and symptoms relative to poisoning, heart attack, stroke, respiratory diseases and hyperventilation.
- Brief all instructor aides as to their roles and responsibilities during the lesson.

Sample Objectives

Conditions	Performance	Criteria
Given a list of 12 parts	the Student Will Be Able To identify on the microscope	at least ten of the given structures correctly.
Given a list of definitions	the SWBAT match the terms andragogy and pedagogy with correct definitions	in less than 2 minutes.
By the end of the week	the SWBAT play a simple tune on the musical instrument of his choice	making not more than one error.
Given a drawing of the interior of the human torso	the SWBAT will correctly identify the vital organs	with 80% accuracy.

Sample Worksheet For Writing Instructional Objectives

Conditions	Performance	Criteria

Appendix E
Lesson 4: Preparing and Using Lesson Plans

Lesson Plan Guide

Before Class

Objectives:

Knowledge

Skill

Requirements:

Equipment

Materials

Preparation/Tasks

Appendix E
Lesson 4: Providing Emergency Care Instructions

Objectives

By the conclusion of the unit, the instructor will have provided the student with sufficient information, demonstration and practice to ensure that the student is able to:

—Given 5 simulated calls, correctly use the Medical Dispatch Priority Reference System to determine the level of EMS response to be dispatched.

—Given 5 simulated calls, correctly use the Medical Dispatch Priority Reference System to provide the caller with detailed emergency care instructions appropriate to the patient problem.

Suggested Time Frame

4-6 Hours (Elapsed time shows a six hour time frame)

Requirements

Materials: (One for each student)

- Student Study Guide
- Student Performance Objectives
- Call report and recordiing form (5 per student)
- Medical Dispatch Priority Reference System (approved for local use)
- Audio or videotape of dispatcher providing emergency care instructions to caller.

Equipment:

- Lectern
- Slide projector and screen
- Overhead projector
- Chalkboard or flipchart
- Telephone trainer set (one for each two students)
- Tape player (audio or video, as appropriate).

Visual Aids:

- Slides and/or transparencies of Medical Dispatch Priority Reference System Cards.

Instructors:

- Course Instructor
- Physician or other emergency medical care provider to provide a condition-by-condition review of the Medical Dispatch Priority Reference System.

Instructor Preparation/Tasks

The Instructor Should:

—Review the unit outline to assure understanding of contents and procedures.

—Review and preview all references and visual aids related to this unit.

—Select and prepare appropriate instructional aids, if needed.

—Be familiar with all visual aids and equipment to be used and demonstrated during this unit.

—Assure that all instructional equipment is operating properly.

—Assure that the Medical Dispatch Priority Reference System to be used has the approval of local medical and EMS authorities.

—Brief emergency medical care provider who will present the condition-by-condition review of the Medical Dispatch Priority Reference System.

—Prepare sample messages for use in simulation of call for assistance and response using the Medical Dispatch Priority Reference System. (See Appendix E).

—Monitor and critique all demonstration and practice sessions.

Time (Elapsed) Actual	Contents
Administrative Matters (---) 0:05	1. Student attendance. 2. Announcements, etc.
Introduction (0:05) 0:10	1. Review materials covered in previous unit. a. Results of CPR certification tests. b. Comments on practical skills session. 2. Stress need for continued practice and review of CPR skills. 3. Overview objectives for this unit.
General Considerations (0:15) 0:10	1. Different localities will establish different policies regarding the dispatcher's responsibility to provide emergency care information to caller. a. In some cases, callers will be patched directly to a physician for advice. b. In others, the decision will be made not to provide such advice. 2. If lives are to be saved through prompt citizen access and action, however, there will be situations where emergency care instructions will need to be provided by the EMS dispatcher. 3. The dispatcher must also make decisions about what emergency response units to dispatch based on the emergency care needs of the patient and the available resources. 4. Consequently, the EMS dispatcher must be prepared to determine what emergency care needs exist and what response and/or instructions are needed. 5. Each local area must also determine what policies will be followed in providing emergency care information, taking into account the: a. Availability of phone patches to physician. b. Perceived legal risks and protection. c. Response times of EMS units. 6. In determining whether to provide emergency care instructions, the dispatcher must consider the following element: a. How soon is an EMS unit likely to arrive at the scene? b. What are the likely consequences if nothing is done before help arrives? c. Is the caller willing and able to provide needed emergency care? d. How likely is the caller to aggravate the victim's condition when attempting to carry out the emergency care instructions? e. Is the condition one in which immediate emergency care steps would be possible and useful? 7. The simplest and safest way to address all these general considerations is to establish a local policy endorsed by EMS and medical authorities and develop a Medical Dispatch Priority Reference System to guide EMS dispatchers in providing emergency care instructions and EMS unit dispatch.

Instructor's Notes

Refer to student handout or slide/transparency.

Discuss local policies regarding provision of emergency care information to callers.

(See References in Appendix D)
Slide/transparency

Show sample manual

Time (Elapsed) Actual	Contents
Process of Providing Dispatch and Instructions (0:25) 0:15	1. Role of the EMS dispatcher in providing emergency care instructions. a. The role of the EMS dispatcher is to obtain specific medical information to accurately prioritize each medical response as listed in the Medical Dispatch Priority Reference System. 1) Each page deals with a specific medical problem listed by symptom or incident type. 2) For each problem, a predetermined response level is stated based on the medical significance of available information. b. The dispatcher must carry out two specific functions to be effective in this process—information collection/caller instruction and dispatching. 1) In large centers, these functions may be separated. 2) The person carrying out the information collection/caller instruction function may be trained in emergency care (e.g., EMT, EMT-P, etc.) 3) In small centers, both functions may be carried out by same person. c. Information—Collection/Caller Instruction 1) Obtain from the calling party the address or location of the emergency. 2) Obtain from the caller the chief complaint and whether the caller is with patient. 3) Using the Medical Dispatch Priority Reference System: a) Ask the key questions (chief complaint, age). b) Indicate to the dispatcher (or dispatch directly) the EMS vehicle response indicated in the manual. c) Give the listed pre-arrival instructions. d) Obtain appropriate medical history and additional information for relay to responding units. e) Obtain telephone number of caller. d. Dispatching 1) Alert appropriate apparatus as determined by the Medical Dispatch Priority Reference System. 2) Relay to responding unit(s): a) Age b) Chief complaint c) Conscious (?) d) Breathing (?) 3) Assist EMS vehicles in finding addresses. 4) Relay information and establish communications links between various EMS units, hospitals and other public safety agencies. 2. The effective dispatch of EMS units and the proper provision of emergency care instructions depends on the quality and quantity of information elicited from the caller. a. A standard checklist and set of questions is essential. b. A quick reference manual keyed to complaints will save time.

Instructor's Notes

Describe how local dispatch centers will handle these functions

Time (Elapsed) Actual	Contents
Format of Medical Dispatch Priority Reference System (0:40) 0:20	1. **Key Questions**—the minimum amount of information necessary to establish the correct level of EMS response. a. Medical cases. 1) Key questions are generally based on symptoms. 2) The caller usually is with the patient or is familiar with the patient or the problem. b. Trauma cases. 1) Key questions are generally based on type of incident rather than specific symptoms, since caller usually is a third party observer not with the patient. 2) Key question example: How far did he fall? Determine categorization between "long fall" and "ground level fall" responses. c. Limitations. 1) The key question system is based on the idealistic assumption that all information asked for is available. 2) Frequently, the dispatcher must modify questioning to "fill in gaps." 2. **Pre-Arrival Instructions** a. The aims in giving pre-arrival instructions are: 1) To assist the caller in keeping the patient from doing further injury. 2) To enable caller to do as much as possible to save a patient in a life threatening situation. b. General instructions given to most all callers include: 1) Calm down 2) Don't move the patient (with exceptions, including: a) Fire b) Carbon monoxide) 3) Observe what patient is doing. 4) Send someone outside to indicate location of emergency to responding units. c. The categories of emergency care instructions most frequently used are: 1) Airway management a) Head tilt b) Obstructed airway procedures c) Pulmonary resuscitation d) Remove pillows from behind head. 2) CPR 3) Direct pressure to control bleeding. 4) Cooling small burns with cold water. 3. **Dispatch Priorities** a. Indicates what type of EMS response is most appropriate. b. Must be specifically adjusted to local resources and system. c. Pages may also be added to list specific ambulance services, fire departments, police agencies, etc. d. Dispatching should be done as soon as adequate information is collected.

Instructor's Notes

Sample manual is Appendix B to these lesson plans. Discuss differences between medical and trauma cases. Refer to a sample page from manual.

Show specific examples on pages from manual.

Show page of manual as example. Use local terminology for response modes.

Time (Elapsed) Actual	Contents
	4. **Additional Information** a. Additional questions to be asked to gain relevant medical information after a response has been started. 1) Information collected should be relayed to responding vehicles. 2) Need for additional responses may be determined. b. Additional information about condition which may be helpful in further decisions.
Ten-Minute Break (1:00) 0:10	
Dispatch Specific Medical Training (1:10) 3:30 **(With Ten-Minute Break After Each Hour)**	1. Review each page of the Medical Dispatch Priority Reference System and discuss. a. General problems and incident types encountered in each category. b. The importance of symptoms as they relate to dispatching. c. Key questions for each category. d. Pre-arrival instructions for each category. e. Dispatch priority for each category. f. Additional information to be gathered relevant to each category. 2. As required in a local area, sections of the Medical Dispatch Priority Reference System may refer to any or all of the following: **Problems** — General Considerations — Abdominal Pain/Injuries — Allergies/Stings — Animal Bites — Assaults/Rape — Back Pain — Breathing Problems — Burns — Cardiac/Respiratory Arrest — Chest Injuries — Childbirth/Obstetrics — Choking — Convulsions/Seizures — Carbon Monoxide Poisoning/Inhalations — Cold Injuries — Diabetic Problems — Drowning — Drug Overdose — Electrocution — Eye Problems/Injuries — Falls — Fractures — Headaches — Head/Neck/Spine Injuries

Instructor's Notes

Use locally approved manual. If possible, an M.D. who has been involved in manual development should present this material.

Since each area will develop its own set of protocols based on specific needs and medical input, some of the specific protocols listed may be modified or combined.

Time (Elapsed) Actual	Contents
	— Heat Problems — Heart Problems — Hemorrhage — Machinery/Industrial Injuries — Multiple Complaints/Injuries — Nonspecific Diagnosis/Illness — Poisoning — Psychiatric/Behavioral — Stabs/Gunshot Wounds — Stroke/CVA — Suicide — Traffic Accidents — Traumatic Injury (nonspecific) — Unconscious/Fainting — Unknown Problem (man down) **Response Agencies** — Advanced Life Support Units — Ambulance Districts — Basic Life Support Units — Coroner — Crisis Intervention — Emergency Departments — Fire Departments — Hospitals — Police Departments — Rescue Squads 3. Manual should also include a protocol for notifying specific persons of unusual situations such as multiple casualties, major fires or accidents, hazardous materials spills, etc.
Demonstration/Practice (Divide Students Into Groups of Two) (5:10) 0:40	1. Students should hear or observe a dispatcher providing emergency care instructions and dispatching appropriate responses. 2. Each student should have the opportunity to practice utilizing the Medical Dispatch Priority Reference System to make dispatch decisions and provide emergency care instructions in response to five simulated calls.
Summary and Questions (5:50) 0:10 (6:00)	1. Class questions or comments on unit. 2. Instructor review of major points noted in practice session. 3. Assign student study guide activities and preparation for next unit.

Instructor's Notes

Locally produced or nationally available tapes can be used. Actual observation in dispatch center is also encouraged.

Instructor should monitor and critique all practice. Student should be allowed to practice until competent in all skills involved.

Appendix E
Lessons 7 and 11: Mini Presentations

Mini Presentation Evaluation Form

Presentor _____

Subject _____

*1	2	3

1. Lesson objectives were made clear to students
2. Lesson introduction created interest and established the need to know
3. All needed supplementary teaching/learning items were ready and organized
4. Instructor maintained proper position for all students to see presentation
5. Aids were well-planned, well-developed, and used appropriately
6. Vocabulary was at appropriate levels
7. The instructor regularly checked with students to see if they were on target
8. Information was presented in an organized format
9. Skill demonstration was presented in a logical step by step sequence
10. Appropriate teaching method(s) was(were) selected to accomplish objectives
11. The instructor's delivery was poised, effective and geared to the topic
12. Instructor stayed on the subject
13. Lesson was too long ( )
    too short ( ) for content
14. Summation and closure were effective

WHAT WERE THIS INSTRUCTOR'S STRENGTHS?

WHERE MIGHT THIS INSTRUCTOR IMPROVE?

* 1=AVERAGE 2=GOOD 3=EXCELLENT

In order to appropriately structure and balance your end of unit, mid-term or final exam you need to develop a test blueprint. This is done by calculating the *percentage of time* (in hours) and *percentage of objectives* you spent on a specific topical area versus all subject matter you are testing. Generally, your exams should reflect a *proportionate* number of exam items on each content area as related to the total time spent and total number of objectives covered in the entire course.

TEST BLUE PRINT CHART

	Content Areas	Number of Objectives	Percentage of Objectives	Time Required (Hours)	Percentage of Time	Number of Exam Items	Percentage of Exam Items
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
13.							
	TOTALS						

For example, let's say an EMT-P course ran 500 hours and covered 1,000 objectives, with the cardiovascular section being covered in 100 hours and 200 objectives.

TIME = 100/500 = 1/5 or 20% OBJECTIVES = 200/1000 = 1/5 or 20%

The final exam of 150 items should then be: 20 X 150 = 30 exam items on CV system or 20% of the 150 item final.

Sample #1
Candidate's Name: _____ **Date:** _____

The candidate will be given the response time before the start of the simulated call. The candidate will be expected to perform as an EMS dispatcher and *will be evaluated* on the level of performance observed.

Title: Convulsions/Seizures **Response Time: 12 Minutes**

Caller Briefing:

You are crying and screaming "Save my baby, help my baby! Do something, now! Oh, God, help me!!" You are just totally out of control. Your next door neighbor is there trying to help the baby. If the dispatcher asks to talk to the neighbor, change to being cooperative. The baby is in the bedroom and you are in the kitchen.

Initial Request for Assistance:

"You've got to help me. My baby's shaking all over and his eyes are rolled back in his head."

Additional Information Volunteered During Questioning:

Approximately one minute into the scene, the baby stops moving. You are afraid he is dead, but he has gurgling respirations.

Evaluation:

Possible Points	Yes	No	Action: Information Sought
			Dispatch Information:
8			Gets address: 710 Main St., Clyde
8			Gets call back number: 693-4015
4			Gets exact location/rendezvous
5			Dispatches urgent response
5			Airs needed medical information (4 basics)
			Medical Information:
6			Identifies chief complaint: Shaking all over and rigid; won't wake up
9			Identifies state of consciousness: Unconscious
9			Identifies breathing status: Gurgling/gasping
6			Identifies victim's age: 4.5 months
			Additional Questions:
3			How long has it gone on? A few minutes
3			Was the baby injured in any way? No
3			Has this happened before? No
3			Has the baby had a fever? Yes
			(None of the above is volunteered unless question is asked)

Evaluation:

Possible Points	Yes	No	Action: Information Sought
			Pre-Arrival Instructions:
3			Don't restrain baby; move dangerous objects
3			Don't force jaw open
3			No CPR while seizing
3			Open airway. (When head is positioned, baby starts crying.)
3			Nothing by mouth
3			Don't go to meet ambulance
			Dispatcher Performance:
3			Did dispatcher follow the protocols?
2			Did dispatcher take control of the situation?
2			Did dispatcher ask to speak to neighbor?
2			Did dispatcher convey in his/her manner, interest in the caller's request?
2			Did dispatcher progress in appropriate order?
100			**Total Points:**_____ (100 Possible) **Candidate's Name:** _____

The candidate receives the points for every "yes" answer checked. Individual candidates total score may be increased or decreased 5 points at the discretion of the evaluator for exceptionally good or poor performance. If points are added or deleted in this manner, narrative documentation is required.

Signature of Evaluator: _____ **Date:**_____

Student's name _____

Date _____

Pass 1 2 3

Fail 1 2 3

Skill Evaluation 10.1.1.S: Nasogastric Tube Insertion

Place an "X" in the appropriate column to indicate the steps that are incorrect, out of sequence, or omitted. The student should be given three attempts to perform the skill.

Equipment

Levin tube
  Adult—No. 16 French
  Children—No. 12 French
Water-soluble lubricant
1-inch-wide tape
Small clamp
50-ml syringe
Cup of water with a straw
Emesis basin

Procedure

Each student should pick a partner and be given all equipment listed above.

Under the supervision of the instructor, the student should insert a nasogastric tube.

Steps

___ ___ ___ A. Assemble the equipment.

___ ___ ___ B. Explain the procedure to the patient.

___ ___ ___ C. Wash hands; gloves are optional.

___ ___ ___ D. Lubricate the tip and first few inches of tube.

___ ___ ___ E. Position a straw between the patient's lips.

___ ___ ___ F. Pass the tube along the floor of the nasal passage.

___ ___ ___ G. When the tube enters the oropharynx, have the patient drink and keep drinking.

___ ___ ___ H. Advance the tube into the stomach—approximately 20 inches.

___ ___ ___ I. Check the position of the tube.

NOTES

Appendix E
Lesson 12: DOT/NHTSA Materials

Emergency Medical Services Publication Information
U.S. Department of Transportation

Instructions for Ordering:

Include full title, number desired, *complete stock number*. Enclose check or money order for total cost.

Unless indicated otherwise, orders are to be sent to the following:

Superintendent of Documents Government Printing Office Washington, DC 20402	Make check or money order payable to: Superintendent of Documents

Do *not* order from the EMS Division in DOT. *This will only delay your orders.*

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1. Emergency Medical Services: FIRST RESPONDER TRAINING COURSE (March 1979) (Formerly Crash Injury Management for Traffic Law Enforcement Officers)

A. Course Guide 050-003-00360-3	$ 2.00
B. Instructor Lesson Plans 050-003-00361-1	$ 7.00
C. Student Study Guide 050-003-00362-0	$ 3.50

NOTE: A Refresher Training Course for the above is under development. Anticipated publication date April 1986.

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2. Emergency Medical Technician—Ambulance (3rd Edition 1984)

A. Course Guide 050-003-00421-1	$ 1.75
B. Instructor Lesson Plans 050-003-00422-7	$10.00
C. Student Study Guide 050-003-00421-9	$ 5.00

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3. Refresher Training Program for No. 2 Above

Being developed under a DOT grant. Anticipated publication date: April 1986.

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4. Emergency Medical Technician INTERMEDIATE TRAINING COURSE

This 1st edition is under development. It will consist of a Course Guide and Instructor Manual. Anticipated publication date is April 1986.

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5. Emergency Medical Care: Paramedic

A. A Manual for the Paramedic in the Field (1983) 050-003-00413-8 — $13.00

This is a textbook and workbook for the trainee and also a reference manual for the paramedic in the field. (Workbook included in price)

B. Emergency Medical Care—PARAMEDIC INSTRUCTOR MANUAL

NOTE: This instructor manual is under development. Anticipated publication date April 1986. This manual will be in a single volume and will replace the 15 separate (modules) publications which were published in 1977. Some of the 15 modules (1977) are out of print and will be reprinted.

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6. Emergency Medical Services DISPATCHER: National Standard Curriculum (1983) (Second Edition)

A. Course Guide 050-003-00417-1	$ 5.00
B. Instructor Lesson Plan 050-003-00416-2	$ 4.75
C. Student Study Guide 050-003-00415-4	$16.00

(The Student Study Guide includes Medical Reference Manual)

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7. Dispatcher Training Program for EMT's

NOTE: This is the 1st Edition, 1976, and is still considered a valuable training document.

A. Course Guide 050-003-00239-9	$ 4.50
B. Instructor's Lesson Plans 050-003-00237-2	$ 6.00
C. Student Study Guide 050-003-00238-1	$ 6.00

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8. Training Program for OPERATION OF EMERGENCY VEHICLES (1978)

A. Course Guide 050-003-00330-1	$ 4.75
B. Instructor's Lesson Plans 050-003-00332-8	$12.00
*C. Student Study Guide 050-003-00331-0	$ 5.50
D. Pursuit Driving for Law Enforcement Officers 050-003-00364-6	$ 4.00

*Sold out but in the process of being reprinted.

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9. CRASH VICTIM EXTRICATION TRAINING COURSE—Emergency Medical Technician (Revised 1979)

NOTE: There is not a Course Guide for this course. The following manuals are to be ordered from the *Government Printing Office*.

A. Instructor's Manual 050-003-00343-3 $ 4.75
B. Student's Manual 050-003-00344-1 $ 4.50

A "kit" consisting of 54 color slides and the above two Manuals is also available. The "kit" must be ordered from:

National Audiovisual Center
Sales Branch
General Services Administration
Washington, DC 20409

(Make check/money order payable to National Archives Trust Fund—NAC)

CRASH VICTIM EXTRICATION TRAINING COURSE—Emergency Medical Technician (Revised 1979) (Slide set and two manuals)

Order No. AO 1927/DK $25.00

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10. Emergency Medical Services—INSTRUCTOR TRAINING COURSE (1979)

A. Manual only (use above title) may be ordered from the Government Printing Office 050-003-00351-4

B. Complete kit (use title above) consists of: (1) manual, (2) a set of 110 slides, 35mm, and (3) two audio cassettes. The kit must be ordered from:

National Audiovisual Center
Sales Branch
General Services Administration
Washington, DC 20409

Order by full course title and Order No. AO 1931 $ 38.75

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11. Air Ambulance Guidelines—National Highway Traffic Safety Administration/AMA Commission on Emergency Medical Services 1981, free (limited supply). DOT-HS-805-703

NOTE: Not available from Government Printing Office. Send request to:

Department of Transportation
Distribution NAD-51
Washington, DC 20590

☆U.S. GOVERNMENT PRINTING OFFICE: 1986—620—033/40584

DOT HS 900 086
February 1986